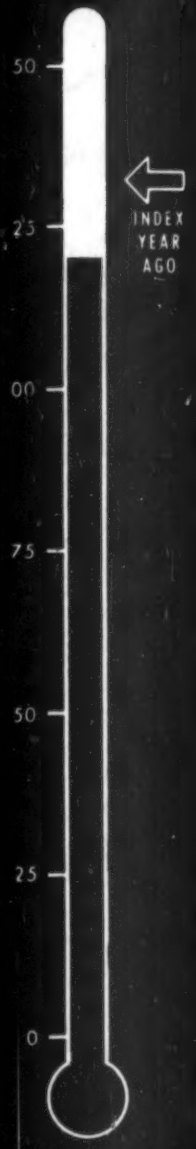
BUSINESS WEEK

INDEX ON PAGE 22

WHY BUSINESS KEEPS SPENDING FOR

Capital Goods

PAGE 104





Brownie Wise of Tupperware: "If we build the people, they'll build the business" (page 54)

A McGRAW-HILL PUBLICATION

APR. 17, 1954

E B POWER BW C B
UNIVERSITY MICROFILMS
313 N 1ST ST
ANN ARBOR MICH



Chemical "magnet" *takes wax out of oil*

Remember when a cold morning meant an engine that your starter could barely turn over? That was paraffin wax in the oil—congealed by chill.

Today, refiners use a special technique which removes paraffin to produce a free-flowing winter oil, and they get salable wax on the side. This de-waxing process works most efficiently, most economically, using methyl ethyl ketone, called MEK, as a *precipitant*.

Nor do the uses of MEK end with oil refining. Its unusually high *solvent* power works to special advantage in making lacquers, adhesives, synthetic leathers – a long list of important industrial products.

* * *

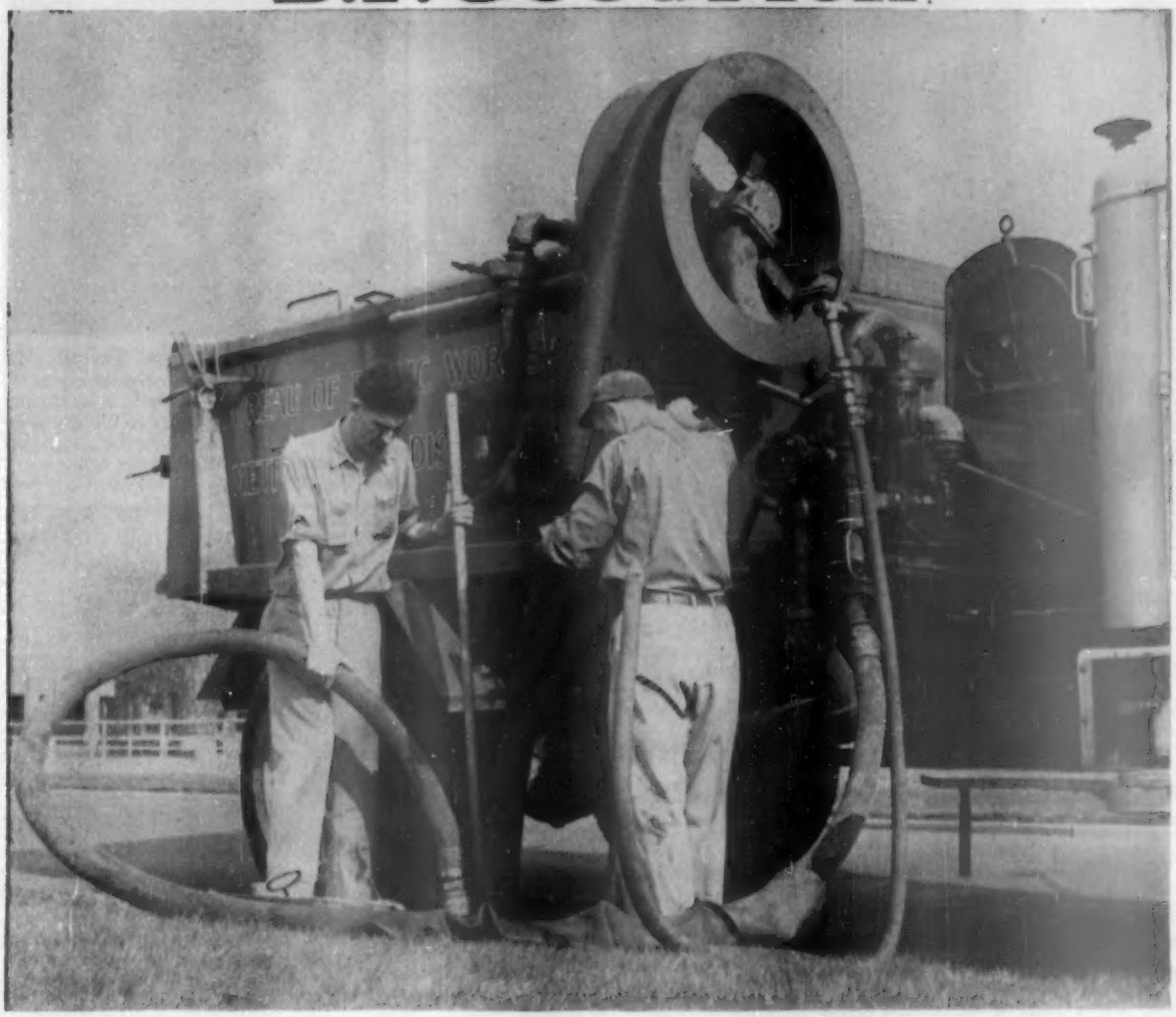
Development of economical solvents for varied uses is another example of Shell Chemical's partnership with industry and agriculture. Making petroleum chemistry serve your needs is our constant purpose.

Shell Chemical Corporation

Chemical Partner of Industry and Agriculture

NEW YORK • SAN FRANCISCO

RESEARCH KEEPS **B.F.Goodrich** FIRST IN RUBBER



Hose collects broken bottles, yet has 3 lives

A typical example of B. F. Goodrich improvement in rubber

THAT'S a sort of giant vacuum cleaner flushing out the sand, oil, broken bottles (plenty of them!) that clog up storm sewers in a big eastern city.

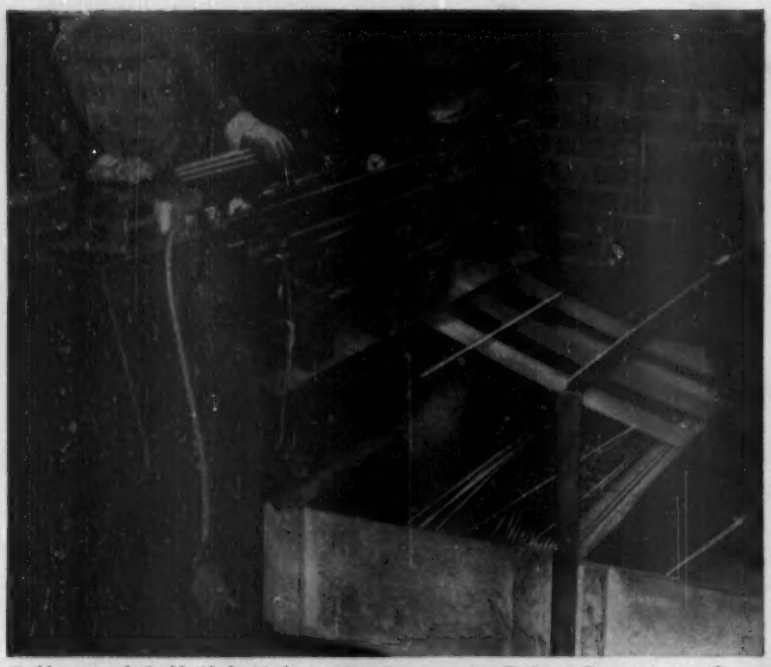
But the suction hose being used was cut and worn to ribbons in three months or less. Then a city engineer heard about a B. F. Goodrich hose that transports broken glass in a glass factory.

B. F. Goodrich engineers, who had designed more than 1,000 kinds of hose, had developed a light, flexible hose, strong enough to stand powerful suction without collapsing. To stand the broken glass, another B. F. Goodrich development was used for the hose lining. It's a special kind of rubber, so well able to resist cutting that on gravel chutes it outlasts the hardest steel many times over.

Put to work here at just one third the cost of the short-lived hose it replaced, the B. F. Goodrich hose is still good after 9 months of wearing, tearing abuse —has lasted 3 times longer than any other hose.

This suction hose is typical of B. F. Goodrich research which is constantly at work improving all kinds of hose, belting and other rubber products, and finding new ways to use them better. Don't decide any product you may buy is the best to be had without first finding out from your BFG distributor what B. F. Goodrich research may have done recently to improve it. *The B. F. Goodrich Company, Dept. M-227, Akron 18, Ohio.*

B.F.Goodrich
INDUSTRIAL PRODUCTS DIVISION



Golfers and Golf Club Makers Win because this Federal Eccentricator Gage detects built-in hooks and slices in golf club shafts. Its 3 electrical Eccentricators inspect for straightness and automatically sort into good and bad. Gage is adjustable for lengths. Also measures and sorts tubular auto antennae and parallel tubes.

Precision Makes Winners

Even where you might not expect it Precision is winning the battle against the high cost of controlling quality.

Until recently many manufacturers of products such as the one above thought that only machine parts producers could afford high-speed measuring, inspecting, sorting and size-control gages. But they discovered that costly engineering was not always required to apply gages for special purposes. So they replaced their outmoded methods with modern methods. Now they're winners, too.

"Special" gages are now standard in the *complete* line of *modern* Federal gages. That's because Federal has engineered more than 30,000 dial indicating, air, electric and electronic gages . . . each for a specific reason.

That tremendous backlog of gaging experience is important to you. Chances are that Federal already has the *one* gage that will cut costs on one of your measuring, inspecting, sorting or size-control operations. Or, maybe a slight adaptation will do the job. In either case, you'll save time and money.

It costs nothing to find out whether Federal can furnish a gage that will boost your quality while cutting your costs. So, why not write for a Federal Sales Engineer to talk over your dimensional maintenance problems. Federal Products Corporation, 424 Eddy St., Providence 1, R. I.

Ask **FEDERAL**

FOR ANYTHING IN MODERN GAGES...

Dial Indicating, Air, Electric, or Electronic — for Inspecting, Measuring, Sorting, or Machine Size Control.



Jet Flyers Win because Federal Air Gages accurately measure the serrations of the "Christmas Tree" form in a jet engine turbine wheel. A segment of the wheel is shown here. Into its complex form the rotor blade must fit precisely.



Automobile Drivers Win because these two Federal Multiple Station Air Gages check eleven critical dimensions on housings of automobile oil pumps. Dimensions are too close together to be inspected simultaneously. So, a series of stops at five stations measures I.D. of 6 holes, center distance between 2 holes, depths of 2 shoulders and squareness of 2 holes to their shoulders.



Grinding Machine Operators Win because a Federal Electricator Gage, applied to a regular Arnold Grinding Gage, allows the latter to control grinding wheel feed automatically. When work reaches size, feed stops, wheel sparks out and wheel head retracts.

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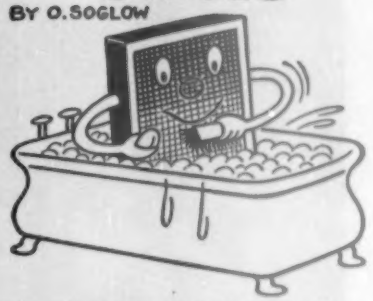
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AIR-MAZING FACTS

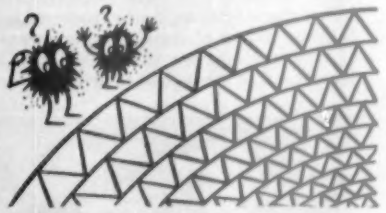
BY O. SOGLOW



NEW FILTER TAKES ITS OWN BATH! Automaze automatic air filters stay clean by continuously taking a bath. Special "pulse-action" thoroughly washes each panel automatically, renews adhesive. Goes 3 to 6 months without attention.



METEORS THAT DON'T HURT! You've been hit by tens of thousands of meteors and never even knew it! They were micro-meteors—dust particles so small 40 of them in a row would just about measure the thickness of a sheet of newspaper.



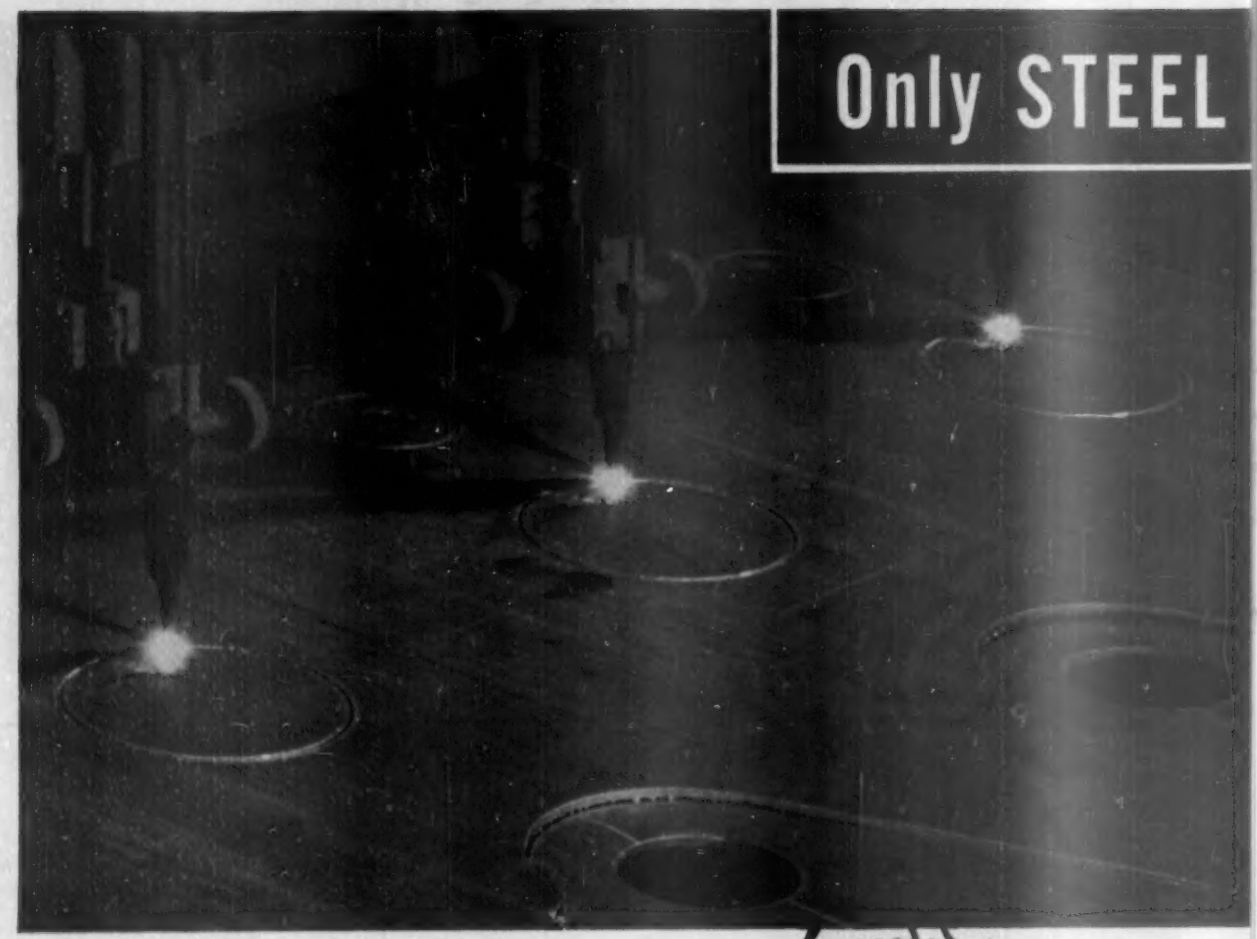
BAFFLES DUST! To keep out damaging dust and dirt, industry equips crankcases, gearcases and other housings with Air-Maze breather filters. Airborne particles are trapped by a series of oil-wetted wire baffles. "Oil bath" types also available for greater protection.

WHETHER YOU BUILD OR USE engines, compressors, air-conditioning and ventilating equipment, *or any device using air or liquids*—the chances are there is an Air-Maze filter *engineered* to serve you better. Representatives in all principal cities. For condensed product catalog, write Air-Maze Corporation, Department C, 25000 Miles Road, Cleveland 28, Ohio.

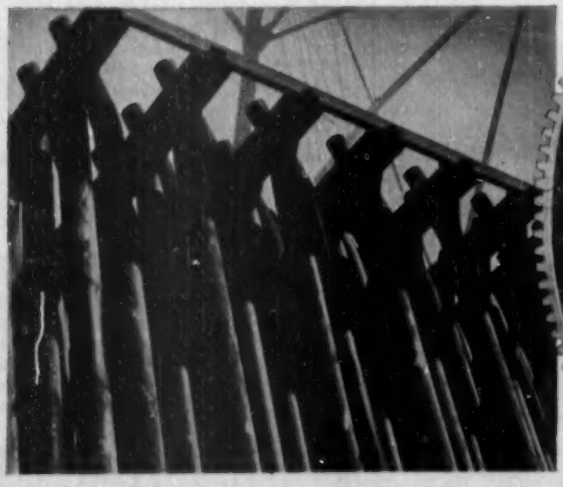
AIR-MAZE
The Filter Engineers

AIR FILTERS
SILENCERS
SPARK ARRESTERS
LIQUID FILTERS
OIL SEPARATORS
GREASE FILTERS

Only STEEL



Cuts Steel Like Butter! This modern flame-cutting equipment, in use at U.S. Steel Supply Division warehouses, can follow the most complicated patterns accurately and turn out finished shapes of steel exactly as wanted. Many fabricators of steel products buy their steel from U.S. Steel Supply, and have it cut to shape before delivery.



What Do You Use For Harps? In this case, for the huge catalyst harps at a modern petrochemical plant, it was corrosion-resistant, long-lasting Stainless Steel. Each harp weighs 1800 pounds.



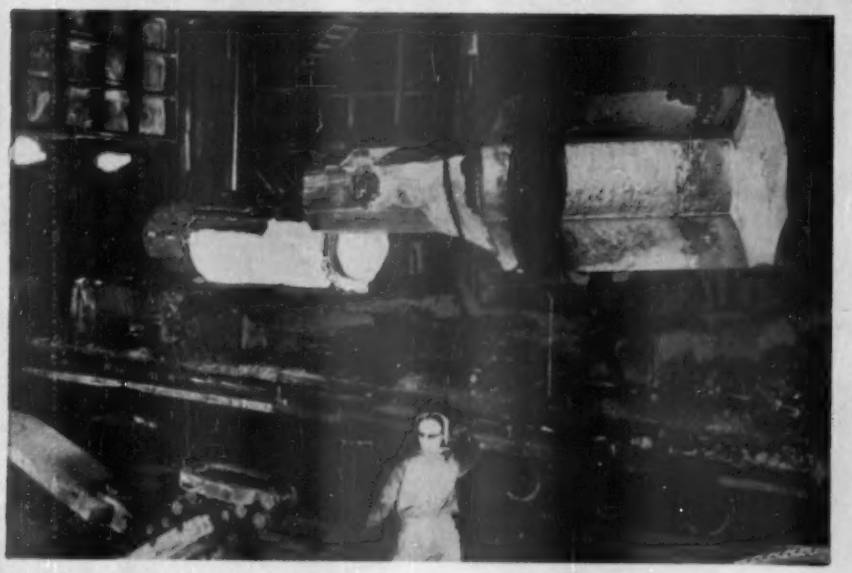
Steel Travels In The Best Circles. Maybe you'll never find yourself in desperate need of a big circle gear like this, but if you do, United States Steel can fabricate one for you, neatly, skillfully and using the best steel for the job. For U.S. Steel custom-fabricates to your requirements almost anything made of steel . . . from church steeples to bridges, from dam gates to grain bins. And erects them, too.

can do so many jobs so well



The Spring's The Thing that gives a Trampoline its unique place in the world of exercise and entertainment. Around the edge of the resilient "bouncing" surface, more than 100 oil-tempered springs, carefully designed and precisely manufactured by U.S. Steel, quietly go about their jobs of supplying the "motive" power that enables a performer to bounce and leap as high as 26 feet into the air—to do double somersaults, full twists, and other fascinating feats hitherto impossible.

SEE The United States Steel Hour. It's a full-hour TV program presented every other week by United States Steel. Consult your local newspaper for time and station.



A 42-Foot Car-Bottom Furnace heats big steel ingots like this up to forging temperature at U.S. Steel's Homestead Works. But proper heating involves a great deal of skill and experience on the part of the men who supervise the process. And U. S. Steel Forgings Division craftsmen are second to none in expertness at their various jobs. Many of them learned their skill from fathers and grandfathers who held the same jobs before them.

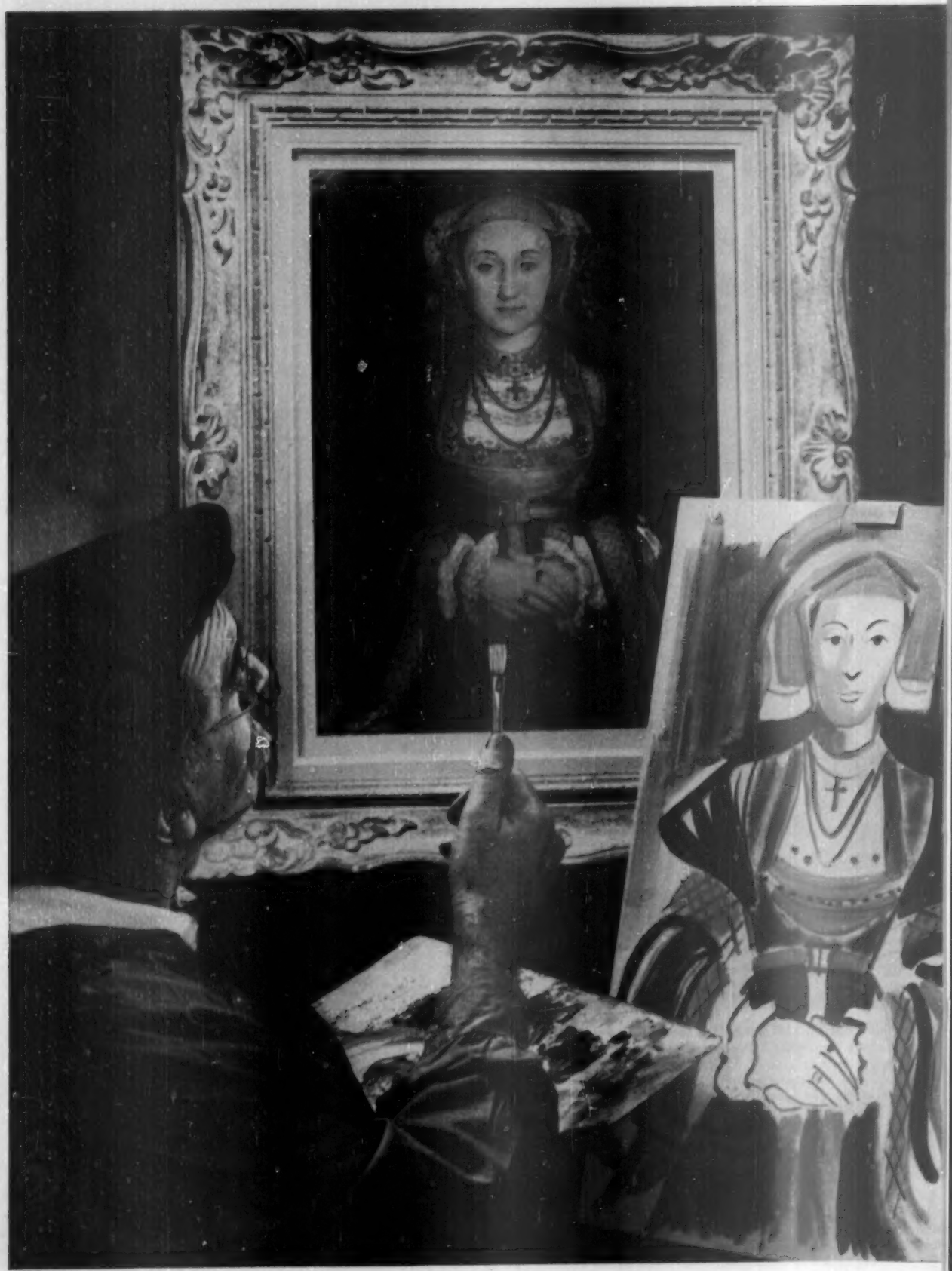
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UNITED STATES STEEL HOMES, INC. • UNION SUPPLY COMPANY • UNITED STATES STEEL EXPORT COMPANY • UNIVERSAL ATLAS CEMENT COMPANY 4-616





There's Only One Original—
Synchro-Glide
Elevator Landing Control

- FASTEST FLOOR-TO-FLOOR TIME
- SMOOTHER, SOFTER LANDINGS
- ACCURATE FLOOR-LEVEL LANDINGS
- SYNCHRONIZED DOOR OPERATION FOR SPEEDIER SERVICE . . . MAXIMUM SAFETY

A real masterpiece is always copied. But the original can never be duplicated. So it is with Synchro-Glide. One ride—one look—and you'll understand why it has set the industry standard since 1950.

Swiftly, quietly, your car approaches floor level and amazing things start to happen. Unseen controls bring the elevator to a smooth, accurate, *once*-level-*stay*-level landing—so fast, so precise, you scarcely feel any motion. Other controls, synchronized with the landing system, are already opening the doors—automatically! Your floor-to-floor time is cut to the minimum—without needless releveling . . . without sacrifice to comfort and safety.

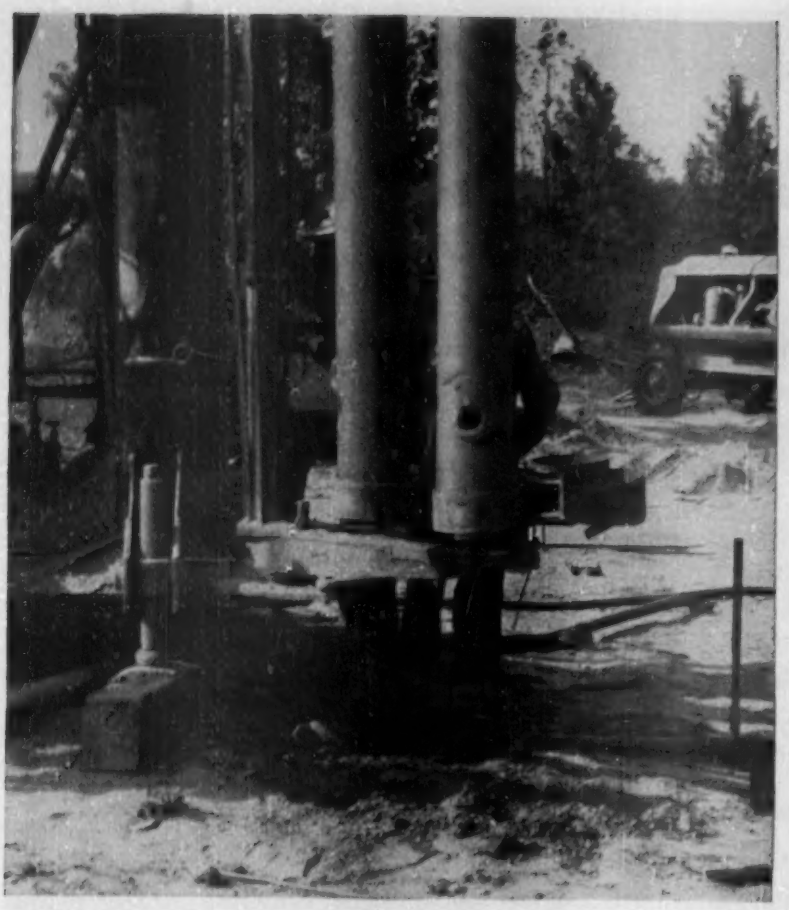
25 years in the making, Synchro-Glide performance stems from a network of ingeniously simple, ruggedly dependable, electric controls. This original Westinghouse development is standard in all Selectomatic elevator systems. Call our nearest office for complete information.

Westinghouse Elevators

PASSENGER AND FREIGHT ELEVATORS • ELECTRIC STAIRWAYS
PROTECTIVE MAINTENANCE AND SERVICE

YOU CAN BE SURE...IF IT'S Westinghouse

J-08701





60-foot furrow
turns up a neat profit

Here's one of the new developments that's bringing more and more coal deposits within the reach of the giant stripping shovels that produce coal at a low cost per ton. It's a new blast hole drill that makes it economically feasible to expose a coal bed buried under 60 feet of earth and rock.

One of the big problems in drilling that deep is the removal of cuttings from the bottom of the hole. On this rig that problem has been solved with a healthy blast of compressed air from the big, new Gardner-Denver 600 Portable Air Compressor. Gardner-Denver Company, Quincy, Illinois.

SINCE 1859

GARDNER-DENVER

THE QUALITY LEADER IN COMPRESSORS, PUMPS AND ROCK DRILLS FOR CONSTRUCTION, MINING, PETROLEUM AND GENERAL INDUSTRY

READERS REPORT

The Two-Leader Committee

Dear Sir:

I was very interested by your recent article, What Makes a Committee Tick, [BW—Mar.20'54,p42]. The implication . . . that a pair of leaders purposely planted into a committee "will be far more effective than either could be on his own" should, I think, be accepted with a certain amount of caution. It's conceivable, for instance, that the two leaders may be too effective; they might overawe the three to five other members. This would certainly affect the soundness of the committee's decisions or analyses.

In studying how a committee solves a problem, I can understand why Bales was . . . "not so interested in the solution as in the methods used." Nevertheless, his findings can be rightly interpreted only in terms of arriving, in a business problem, at the best possible solution.

I enjoy reading every issue of your magazine; the articles are stimulating and clearly written.

JOHN D. MAYER
THE PRINCETON CLUB OF NEW YORK
NEW YORK, N. Y.

• Although it is possible that two leaders in a committee might tend to overawe the other members, we do not feel that this detracts from the value of Bales's dual-leadership theory. Rather, it means that the leader coalition would have to keep itself in check, to keep the committee operating at an optimum level of efficiency by drawing out the best ideas from the entire group and leading it to a logical conclusion.

Selective Competition

Dear Sir:

The Special Report on Transportation [BW—Mar.20'54,p102] is accurate, concise and timely. . . .

The regulation of the railroads as common carriers required to serve all comers at rates fixed as your article describes, was the natural outcome of a regulation which had as its purpose the restriction of competition and the establishment of a monopoly. Selective competition between railroads was effectively stopped and . . . the theory of allowing the strong, net-revenue-producing portion of the business to carry the weak worked satisfactorily.

Unfortunately, the regulatory agencies and the public have not yet learned that the selective competition of the trucks has destroyed the monopoly of the railroads, reproduced the chaotic



A LIFT FOR AMERICAN INDUSTRY

Industry has long felt the need for a lifting device that can't burn out, even when stalled . . . and that can be used continuously—hour after hour if need be—without shortening the life of the motor.

Today, the Keller Air Hoist is meeting this need . . . and others.

For example, it is not limited to one or a few speeds but has an infinite number that permits moving the load up or down at any desired rate, from the merest "nudge" to full speed—17 fpm.

It is so compact and light weight that a hoist able to lift 1,000 pounds weighs only 28 pounds—easy to tuck under an arm and carry up a ladder to hang.

Yet, despite its small size and light weight, it is so rugged that it stands up to severest duty—with maintenance records so low that they are amazing.

Above, the Keller Air Hoist is at work in an automobile plant, lifting rear axles onto a conveyor for transport to the assembly line.

Are your production engineers aware of this remarkable new air hoist? Perhaps you should call it to their attention . . . suggest they send for literature.

KELLER TOOL COMPANY

1301 FULTON STREET

GRAND HAVEN, MICHIGAN



Air Tools engineered to industry

INDUSTRY Lives by the INCH



Moses, the great law giver said "Thou shalt have a perfect and just weight, a perfect and just measure shalt thou have that thy days may be lengthened in the land."



The "just and perfect" inch is essential but, in itself, insufficient without a true means of applying it to the unknown dimension. The difficulty of true application has been a constant challenge to science and industry for the last hundred years.

The new Sheffield Airetest Indicator is now proving its great value in helping the inspector, the toolmaker and the research engineer to eliminate this pernicious hazard in application. Its basic design principle excludes the mechanical infidelities inherent in its predecessors. Its sensitivity makes it decisive to five decimal places. It contains no vulnerable elements which require periodic replacement or maintenance.

Without modern economical production equipment to assure interchangeability, both the mass production assembly line and today's replacement parts system would be impossible.

Industry lives by the inch.

Gage Division, The Sheffield Corporation, Dayton 1, Ohio, U. S. A.

MASTER CRAFTSMAN SHEFFIELD HEADQUARTERS

SHEFFIELD

situation which existed before regulation, and destroyed the effectiveness of the system of rate-making. Even so-called common carrier trucks are traditionally selective, in spite of their name. They find convenient excuses for not calling for undesirable freight while concentrating on the heavy volume, long-haul (admittedly more remunerative) freight which railroads can undoubtedly haul cheaper. Meanwhile, railroads continue to serve every village, hamlet and town with a distribution service which undoubtedly could be better performed by trucks. . . .

The interesting point here is that this has nothing to do with technology. If the trucks had developed the country and had become established as genuine common carriers, the railroads, in the absence of regulation, would have affected them the same way by selective competition.

The resulting chaos will have a serious effect on the national economy unless corrected . . . in one of two ways: either regulation must be made equal and consistent or it must be entirely removed. . . . If a trucker suggests he is regulated already . . . ask him how many truckers are required, as a condition of their being allowed to do business, to operate a commuter service at a substantial loss. . . .

H. E. Bixler
ASSISTANT TO THE PRESIDENT
BOSTON AND MAINE RAILROAD
BOSTON, MASS.

Problem Child

Dear Sir:

The Drunk: He's Management's Baby [BW—Mar.13'54,p103] was of timely interest to me and the Health Committee of the Schenectady Chamber of Commerce. On Mar. 12 our committee met with several leaders of Schenectady industry to discuss this subject. We are presently surveying communities in the 90,000-100,000 population class to ascertain their activity in this field. Your article was most helpful.

On the lighter side (sic) . . . it appears that your typesetter and proof reader were affected by the subject matter when one reads the reference note (BW—Feb.18'59,p116) on page 103. Could be that BW has its problems, too!.

James J. Hughes
ASSISTANT MANAGER
SCHENECTADY CHAMBER OF COMMERCE
SCHENECTADY, N. Y.

• Thash right.

Dear Sir:

The article . . . in my opinion is a most excellent job. In fact, it is one of

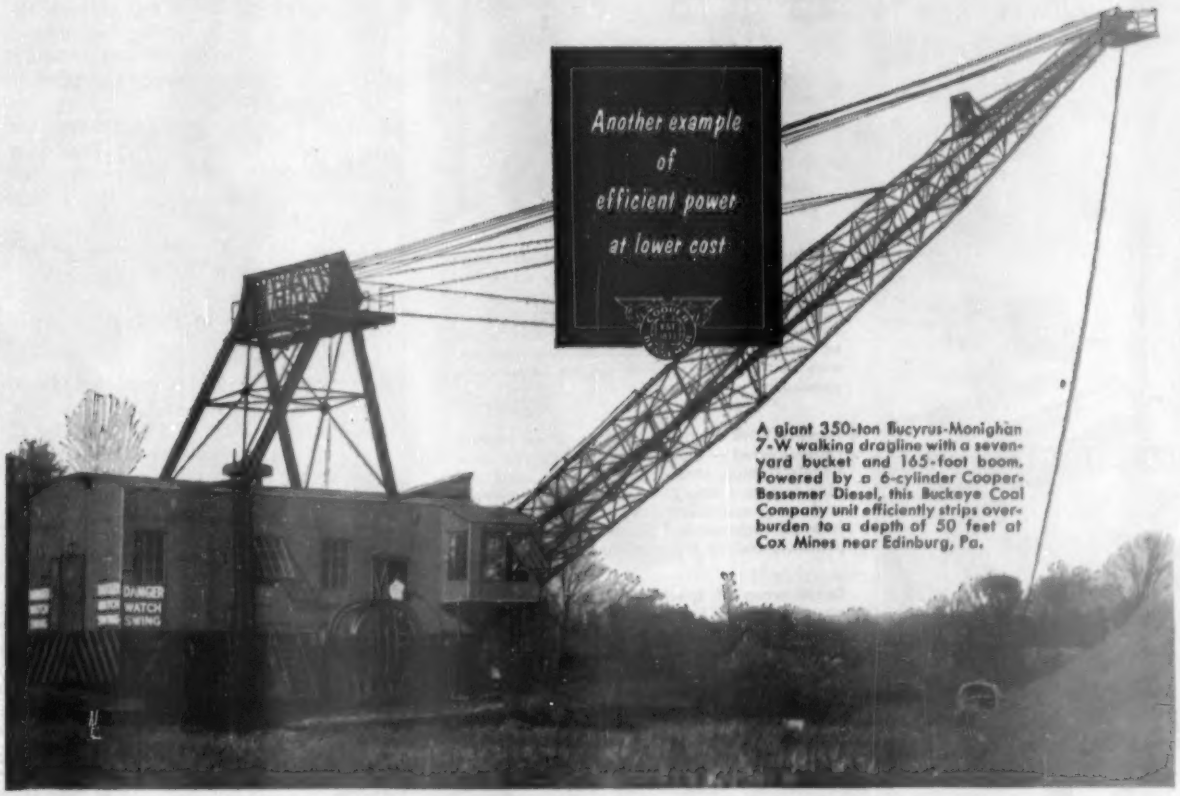
COOPER-BESSEMER GOOD AS EVER AFTER

10 years at hard labor

AFTER more than 10 years and 46,000 hours of heavy-duty strip mining, the Cooper-Bessemer Diesel powering this walking dragline continues to offer trouble-free operation in one of the most grueling types of engine service.

The "instant-response" power needed for digging as well as walking is supplied by a rugged six-cylinder Cooper-Bessemer Diesel. Yearly maintenance overhauls of the engine have shown surprisingly little wear to any major engine parts . . . an impressive record of stamina and low-cost service.

This engine's year-after-year dependability is additional proof that you can always rely on Cooper-Bessemers for exceptional life and continuing economy. For power requirements from 200 to 3700 bhp, see your nearest Cooper-Bessemer office for complete details.



A giant 350-ton Bucyrus-Monighan 7-W walking dragline with a seven-yard bucket and 165-foot boom. Powered by a 6-cylinder Cooper-Bessemer Diesel, this Buckeye Coal Company unit efficiently strips overburden to a depth of 50 feet at Cox Mines near Edinburg, Pa.

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Mount Vernon, Ohio

COOPER-BESSEMER

Grove City, Pa.

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Profit with papers by Mosinee

Get "More profits with paper" — for laminations, protection, insulation, packaging, fabricating, or processing

A GROWING number of industries have found Mosinee's more than a quarter century of experience particularly valuable in helping to develop special papers to perform specific functions. They've discovered that Mosinee special papers help complete their product or processes faster, easier and usually at less cost.

For details on how Mosinee special papers can help solve your problem — write or see your Mosinee representative. Find out how *you*, too, can profit more with papers by Mosinee.





Mosinee patented paper forms cut costs, simplify building. Lightweight, easily transportable Mosinee slack-sized, reinforced papers now replace wood and other materials as forms for concrete pouring. This is only one of many instances in which Mosinee cooperates in originating new papers to improve processing or production.



Plastics with Mosinee impregnated papers replace steel — make inside refrigerator door panels lighter, stronger, better insulated and able to take a smoother finish. Mosinee works with many manufacturers to develop exclusive formula impregnated papers to improve end products and/or components.

Cable wrap of special Mosinee paper goes on easier, lasts longer. Made to manufacturers' and UL specifications, Mosinee moisture resistant, extra-tough cable wrap offers a plus value. Specialized Mosinee production controls insure perfect uniformity, minimize crushed or cracked edges common in high-speed wrapping operations.

MOSINEE PAPER MILLS CO.
DEPT. B • MOSINEE, WISCONSIN



Mosinee

— specialist in industrial paper technology —
makes fibres work for industry

the best that has appeared in business magazines and house organs. . . .

R. M. HENDERSON
INDUSTRIAL CONSULTANT
YALE UNIVERSITY
CENTER OF ALCOHOL STUDIES
NEW HAVEN, CONN.

The Wrong Method

Dear Sir:

On page 18 of the Mar. 20 issue of BUSINESS WEEK, *you state: "The 1952 Federal Reserve average was 125—this year's high to date." Your Business Outlook shows eight months of falling behind year-before levels.*

On page 196 of the same issue, in the editorial, Combating Communism, you state: "It is that economic development, leading to higher living standards, is the one way to reduce Communism's appeal."

We, the common folks of our own United States, wonder why we offer such sound advice and canny appraisal of the facts abroad, but we waste our time fighting amongst top political figures instead of correcting the obvious decline in our own economic structure —feeding the one source of comfort to all Communists.

They tried for years to undermine our economy, without success. Will they succeed now, while our leaders are fighting with each other to see who is the boss?

SHEPARD HERMAN
BROOKLINE, MASS.

In War and In Peace

Dear Sir:

Congratulations on your fine documentary, New Kind of Man for a New Kind of Air Force Job [BW—Mar.27 '54,p80]. As one of Col. Vandevanter's operations officers during World War II, I would say his life has changed but little in ten years. During March, 1944 he led the Eighth Air Force on one of the first successful daylight bombing missions on Berlin. . . .

W. T. VANCE
DREXEL HILL, PA.

Toll Roads

Dear Sir:

Please accept our congratulations and thanks for your splendid article on toll roads [BW—Mar.27'54,p94]. . . .

Your summary of the state by state prospects for developments in this field was particularly welcome.

L. WYNN PITCHER
ASSISTANT MANAGER, COMMERCIAL RESEARCH
AMERICAN BRIDGE DIVISION
U. S. STEEL CORP.
PITTSBURGH, PA.



as sure as spring . . .

Earth awakens, and the cycle of the seasons begins again—sow . . . ripen . . . harvest . . . rest.

And through them all—through rain and sun, wind and snow—steel will stand up in fencing made for *years* of service.

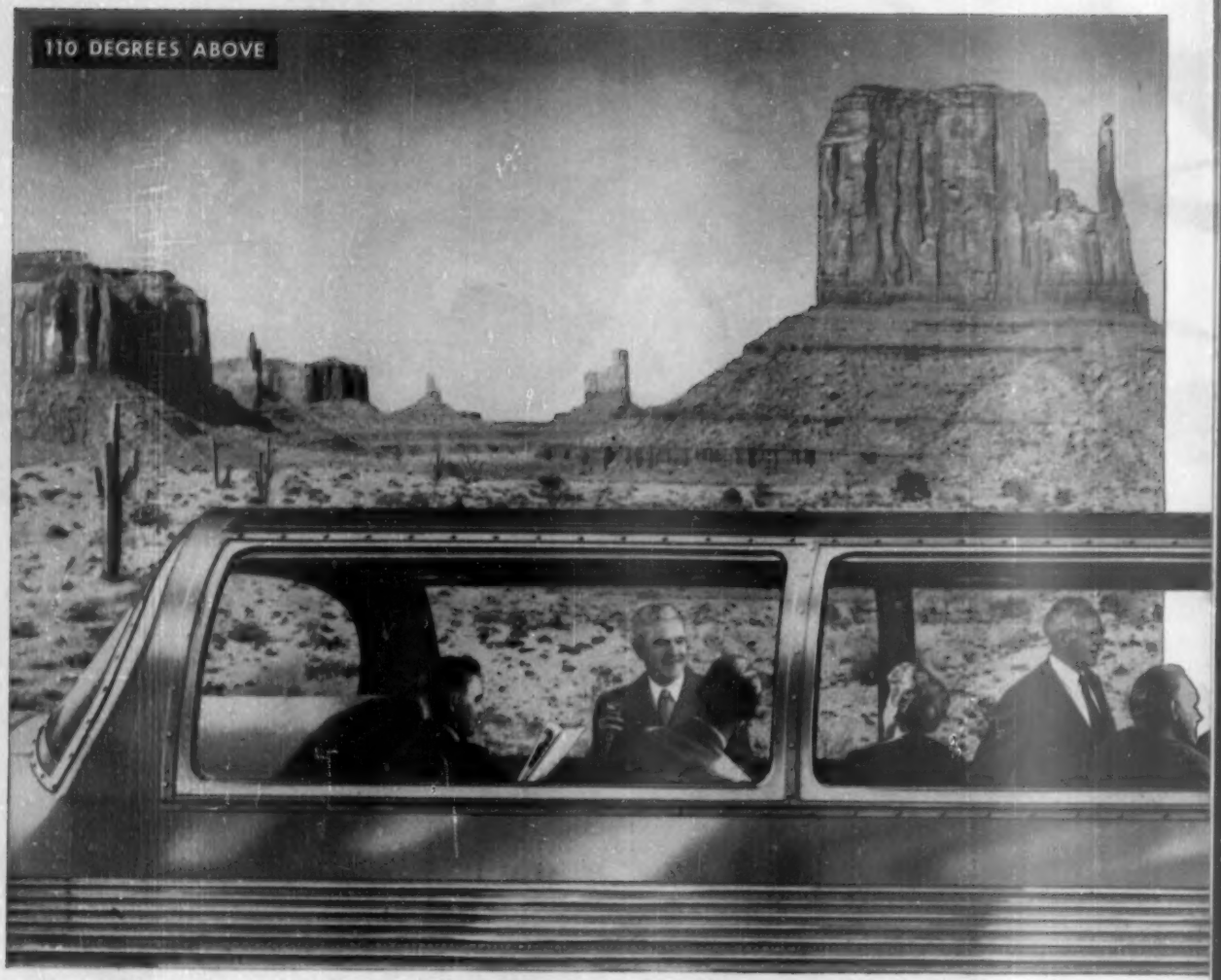
J&L barbed wire and woven wire fence are examples of J&L Steels that stand the important tests—*on the job.*

J&L STEEL

Jones & Laughlin

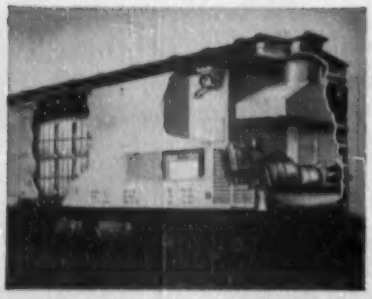
STEEL CORPORATION — *Pittsburgh*

Look to J&L...for the steels that work for modern industry



The view is terrific . . . so was

How Trane provides all-weather



Automatic refrigeration for freight, too, is a TRANE development under extensive test by railroads. Cutaway shows equipment that creates and circulates conditioned air to protect cargoes of frozen foods, perishables.



In the skies, huge Stratocruisers like this use TRANE Coils for both passenger comfort, motor efficiency. Specially built TRANE Coils are used in air conditioning system. Others cool air for carburetors.



On hundreds of buses, passengers now owe their air conditioned comfort to TRANE equipment. As long ago as 1937, TRANE worked with a leading U.S. bus line to develop the first fleet of air conditioned buses.



New Santa Fe full-length dome cars built by Budd with air conditioning equipment by TRANE.

the air conditioning problem!

comfort for glass house on wheels

Exposed to hours of desert heat or miles of mountain cold, these new full-length dome cars posed a terrific problem in air conditioning.

Yet their comfort never varies.

A TRANE-built air conditioning system solved the problem. This system is large enough to meet the needs of 7 average homes. It provides *up to 3 climates*—a *different* climate to each of 3 zones of each car at the same time!

If one of the zones needs more or less cooling than the others, it gets it—automatically.

And if clouds shade the sun, you never feel the difference. For magic controls spot the clouds and order the TRANE system: "A bit less cooling for a few moments, please!"

The building of equipment that solves such problems is a TRANE specialty. You'll find TRANE equipment riding rails, traveling the country's highways, flying with jets; air conditioning giant offices, factories; *serving everywhere that air can be tailored to provide extra comfort or better manufacturing processes.*

For comfort or process, for *any* air conditioning, turn to TRANE. See your architect, consulting engineer or nearest TRANE Sales Office.

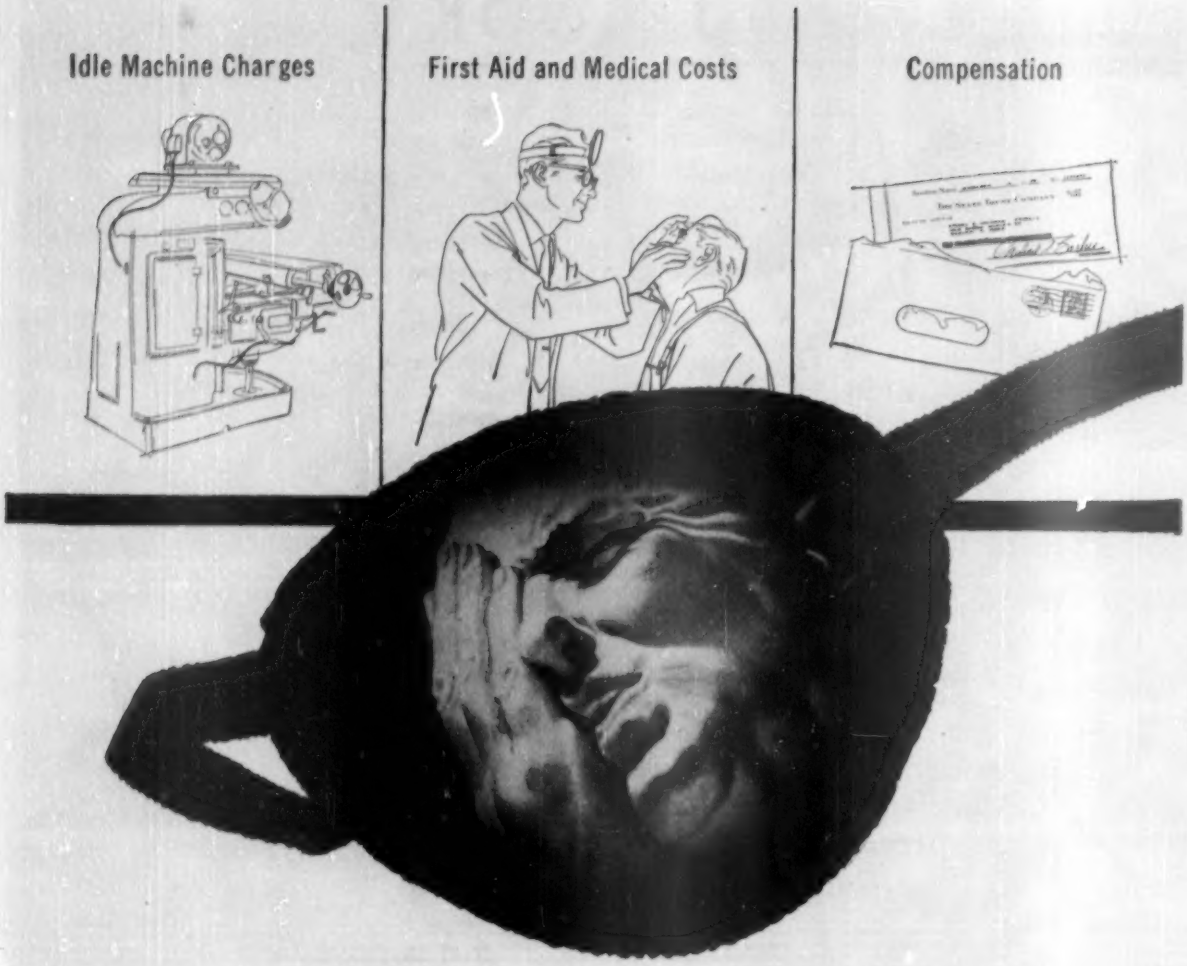
TRANE

Manufacturing engineers of

AIR CONDITIONING, HEATING,

ventilating and heat transfer equipment

The Trane Company, La Crosse, Wis. • East. Mfg. Div., Scranton, Penn. • Trane Co. of Canada, Ltd., Toronto • 90 U.S. and 14 Canadian Offices



Everyone favoring repeal of this Triple Taxation say "Eye Protection"!

Yes, when eye accidents hit your plant you pay a triple tax. First, the cost in idle machine charges and lost man hours. Second, the cost in First Aid and medical expense. Third, the cost of compensation which can run well into five figures for just one lost eye.

Eye accidents cost more than $5.00 per employed worker per year — the safety glasses that prevent 98% of these injuries average about $2.30. Whether you run a department or manage an entire business, aren't you interested in such a pay-off of *over 115%*? Ask an AO Safety Representative to show you how and where an AO program has cut costs in your own industry. Or write American Optical Company, 414 Vision Park, Southbridge, Mass., for free booklet.

American Optical
SAFETY PRODUCTS DIVISION

AO SAFETY ZONE

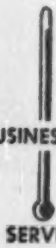
Keep your workers in the Safety Zone with American Optical Safety Equipment

SOUTHBRIDGE, MASSACHUSETTS • BRANCHES IN PRINCIPAL CITIES

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American Optical Company

BUSINESS OUTLOOK

BUSINESS WEEK
APR. 17, 1954



Spring is coming in with a bang. **Merchant's cash registers all around the country are finally ringing with a real jingle.**

It's far too early to say that the whole economy is turning up. But one thing is clear: **The pattern of the news is beginning to change.**

Instead of a steady slow slide everywhere—an erosion that has lasted almost a year—**some lines are now perking up merrily.**

Retail sales zoomed with good weather and Easter (page 30). That's good news for practically all business. **Even though the decline has been slight, it has hurt a lot of business, made almost all businessmen uneasy.**

There's new life, too, in housing (page 25).

The rosy side: **Lenders have mortgage money running out of their pockets.** They're out hunting contractors, looking for places to put their money. That's a big turnaround from the situation even six months ago.

The gray side: **Sales of used houses—and even of new houses in some areas—are sticky. The stumbling block is terms.** The down payment is just too high for most of the customers.

Action by Congress could make all the difference here, make this another great year for builders.

—•—

The good news has already heartened businessmen who keep their eyes on daily sales figures. **And it sharpens hopes for something everyone has been waiting for: a turning around in buying for inventories.**

You may not know for weeks just what is happening on inventories. **The figures for February showed no great change**—but no one expected them to.

Now, with Easter business out of the woods, **retailers may begin buying again to stock empty shelves.** That would be felt all the way up the line. It would reverse the thing that started the recession—the cutting of orders and production to use up goods on hand.

The good news on sales is reinforced by investment plans (page 104). The pace-setting big companies have firmed up their plans for buying new plants and equipment. **It looks now as if their spending will come close to last year's record total**—and that firms up the whole business outlook.

With all the good news, though, you have to keep your eye on two big questions:

Will the upturn be more than seasonal? Sales have been running about 4% behind year-ago figures. Production is off even more. To give us a real turnaround, business will have to climb up faster than the usual spring lift will carry it up.

Will the cash customers loosen up? The picture you get from retailers around the country is one of cautious buying. **People have $200-billion in liquid savings, and they've been paying off installment debt.** So they're in a good position to spend. But there's little sign of a rush to spend that could carry sales above the year-ago level.

Dollarwise, retail sales are still high when compared to any year, except 1953.

Over-all, consumers have cut back their purchases very modestly. And that's true even when stacked up against last year. The Dept. of Commerce reports **first-quarter sales in dollars were down only 2% from the last quarter of 1953, and just 4%** behind the first quarter of last year.

But more and more how you size up consumer buying depends on where you sit.

Retailers selling groceries, gasoline, and drugs have been taking in more dollars than they did in the same months last year. Not too much more, but they're still ahead. **Other lines have been lagging—apparel, autos, TV, and other hardgoods.**

On the whole, durable sales are down to about $4.6-billion a month—11% less than a year ago.

But that isn't the whole story. **You have to remember here that prices are off,** some of them sharply. Last March ten used cars might have brought in $10,000. This March it will take twelve—maybe more—to bring in that $10,000.

You can ask businessmen in the same line, how's business, and you'll get a wide scattering of answers.

Take autos for instance. **In the first quarter, Ford increased production 20%, General Motors held about even, Chrysler cut production 45%.**

—•—

Builders are beginning to feel the cut in public housing.

Last March 9,700 public units were started. This March starts are down to 1,200 units.

Meanwhile, **private building shows vigor.** March starts just about equaled year-ago totals—95,800 starts this year vs. 96,100 a year ago. **That's probably the reason there's not too much pressure on Congress to push public housing.**

—•—

Defense cuts (page 28) have had an uneven impact on the economy.

Orders for aircraft and guided missiles have either stayed the same or increased.

Military shipbuilding has been holding even.

The big cuts have come in ammunition, motor vehicles, artillery, weapons, electronics, and production equipment.

Defense cuts help explain the lag in manufacturing employment.

Latest figures from the Bureau of Labor Statistics show **jobs in areas other than manufacturing and farming are holding up.** There are almost as many jobs in trade, construction, and utilities as there were a year ago.

But manufacturing jobs are off. The total drop is 1.3 million. And **March showed a continuing decline** in the number of workers in the durable goods industries, transportation, and mining—all lines closely tied to defense activity.

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Satisfaction rests on the carton



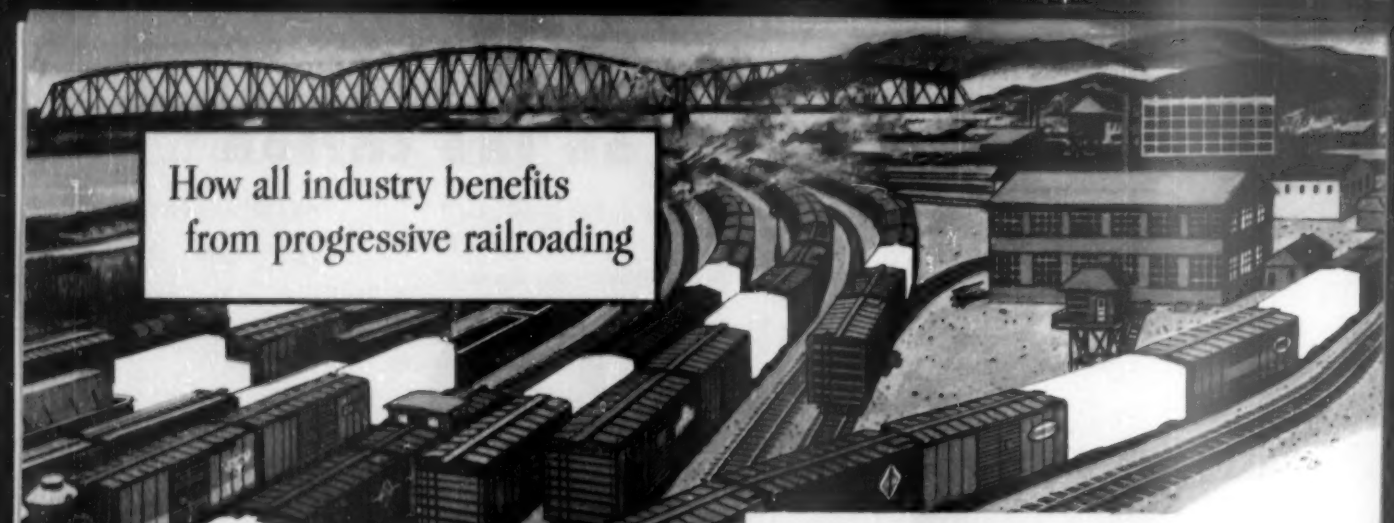
Johnson & Johnson sells the same quality that shippers look for in Union Corrugated Containers—protection. Union boxes are strong and dependable. They are where you want them, when you want them. Consider this definite evidence of Union superiority: More than half the major users of shipping containers who maintain their own package testing laboratories are satisfied Union customers.

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How all industry benefits from progressive railroading

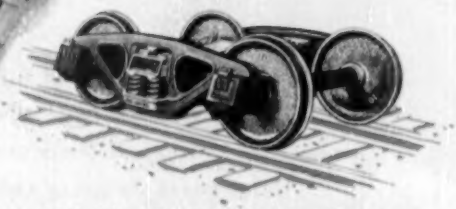
They're hauling MORE FREIGHT with FEWER CARS!

Over the years your freight tonnage has increased by millions, and now it's being hauled—*more efficiently*—with 25% fewer cars!

This is only one of the many reasons why railroads offer you better freight service at a bigger value than ever before. Today, classification yards have electronic equipment. Motive power is modern, car and track maintenance systems mechanized. Thousands of bigger, better cars are averaging over 50% higher speeds!

Carrying heavier loads at higher speeds meant new problems in running gear design. As the leading producer of running gear, American Steel Foundries took the initiative and worked with railroads on a smoother-riding, high-speed freight car truck. Toughest nut to crack: passenger train speeds *at freight car costs.*

The answer was the ASF Ride-Control® Truck. Railroads saw in this new, modern truck *an economically practical way to speed shipments.* Its unprecedented use is another example of how railroad progress is keeping in step with industry's shipping needs.



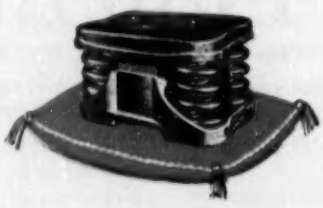
ASF Ride-Control Truck—first to make modern freight speeds possible. More of these smoother-riding trucks are specified than all others combined!

American Steel Foundries

World's largest producers of railroad running gear

Executive Offices: Wrigley Building, Chicago 11

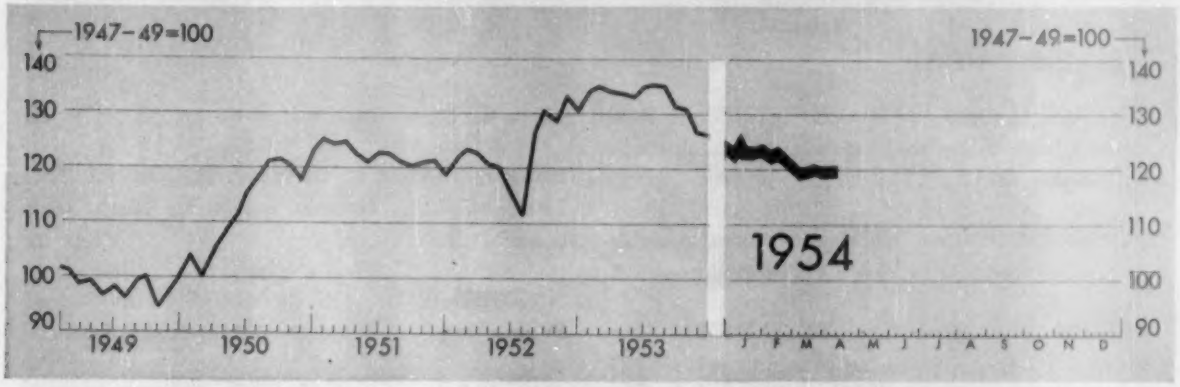
The mechanical principles of the Ride-Control Truck are now built into the "Ride-Control® Package"—which makes older cars suitable for unrestricted use, *at costs that are realistic.*



Average ton-miles per car per day is 61% higher than 1936-1940 average! Industry benefits from this higher efficiency—and from today's faster, smoother-riding, modern car pool.



FIGURES OF THE WEEK



	§ Latest Week	Preceding Week	Month Ago	Year Ago	1946 Average
Business Week Index (above)	*120.5	†120.4	120.6	132.8	91.6
PRODUCTION					
Steel ingot production (thousands of tons)	1,604	†1,622	1,613	2,228	1,281
Production of automobiles and trucks	152,262	†146,498	143,478	176,783	62,880
Engineering const. awards (Eng. News-Rec. 4-week daily av. in thousands)	$51,415	$47,616	$37,283	$48,175	$17,083
Electric power output (millions of kilowatt-hours)	8,396	8,463	8,519	8,001	4,238
Crude oil and condensate production (daily av., thousands of bbls.)	6,568	6,486	6,458	6,268	4,751
Bituminous coal production (daily average, thousands of tons)	1,106	1,112	1,043	1,346	1,745
Paperboard Production (tons)	242,573	225,519	243,388	235,635	167,269
TRADE					
Carloadings: manufactures, misc., and l.c.l. (daily av., thousands of cars)	67	66	65	76	82
Carloadings: raw materials (daily av., thousands of cars)	33	34	33	41	53
Department store sales (change from same week of preceding year)	–13%	–11%	–11%	+8%	+30%
Business failures (Dun and Bradstreet, number)	246	267	229	140	22
PRICES					
Spot commodities, daily index (Moody's Dec. 31, 1931 = 100)	436.2	438.2	428.6	414.4	311.9
Industrial raw materials, daily index (U. S. BLS, 1947-49 = 100)	85.4	84.7	82.8	87.9	††73.2
Foodstuffs, daily index (U. S. BLS, 1947-49 = 100)	102.8	101.6	99.7	87.8	††75.4
Print cloth (spot and nearby, yd.)	19.8¢	20.1¢	20.1¢	21.0¢	17.5¢
Finished steel, index (U. S. BLS, 1947-49 = 100)	140.9	140.9	140.9	130.7	††76.4
Scrap steel composite (Iron Age, ton)	$25.17	$24.50	$23.33	$42.75	$20.27
Copper (electrolytic, Connecticut Valley, E&MJ, lb.)	30.000¢	30.000¢	29.980¢	30.515¢	14.045¢
Wheat (No. 2, hard and dark hard winter, Kansas City, bu.)	$2.45	$2.43	$2.42	$2.36	$1.97
Cotton, daily price (middling, ten designated markets, lb.)	34.01¢	34.11¢	34.28¢	32.89¢	30.56¢
Wool tops (Boston, lb.)	$2.12	$2.12	$2.12	$2.10	$1.51
FINANCE					
90 stocks, price index (Standard & Poor's)	219.2	215.6	211.4	197.4	135.7
Medium grade corporate bond yield (Baa issues, Moody's)	3.46%	3.47%	3.51%	3.62%	3.05%
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate)	2%	2%	2%	2¼%	¾–1%
BANKING (Millions of dollars)					
Demand deposits adjusted, reporting member banks	52,376	51,812	54,753	52,723	††45,820
Total loans and investments, reporting member banks	79,078	78,055	79,700	76,882	††72,036
Commercial and agricultural loans, reporting member banks	22,714	22,763	22,481	23,297	††9,299
U. S. gov't guaranteed obligations held, reporting member banks	31,518	30,850	32,292	29,736	††49,879
Total federal reserve credit outstanding	25,357	25,316	25,638	25,427	23,883

MONTHLY FIGURES OF THE WEEK		Latest Month	Preceding Month	Year Ago	1946 Average
Average weekly earnings in manufacturing	March	$70.53	$70.71	$71.93	$43.82
Retail sales (seasonally adjusted, in millions)	March	$13,670	$13,932	$14,437	$8,541
Wholesale prices (U. S. BLS, 1947-49 = 100)	March	110.6	110.5	110.0	78.7
Housing starts (in thousands)	March	97.0	73.0	105.8	55.9
Bank debits (in millions)	March	$171,260	$141,933	$153,356	††$85,577

* *Preliminary, week ended April 10, 1954.* †† *Estimate.* § *Date for "Latest Week" on each series on request.*
† *Revised.*

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Inco Aids the Machine Tool Industry

...to help you get more and better products

The world marvels at the constant climb of our standard of living to heights attained by no other nation in history.

And the secret? Mass production . . . machine tools . . . bringing better and better things within reach of more and more people.

So many of the things we take for granted . . . appliances in your home, the car in your drive, the watch on your wrist . . . are there because of production miracles made commonplace by America's machine tools.

But men who design and build these amazing tools seldom speak of the planning and foresight that must go into their development.

Unending competition for higher speed, simpler control, longer, trouble-free life, demands the closest possible interdependence between design and materials.

For years the technical staffs of International Nickel have worked hand-in-hand with machine tool designers, engineers, metallurgists, research and production men on a wide range of metal problems. To this extent they have contributed to the continuing improvements in machine tool accuracy and performance.

Through this and comparable experience gained in technical service throughout industry, International Nickel has accumulated a fund of useful information on the production, fabrication, treatment and performance of engineering alloy steels, stainless steels, cast irons, brasses, bronzes and other alloys containing nickel. This information and data are yours for the asking. Write for "List A" of available publications.

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TRADE MARK

THE INTERNATIONAL NICKEL COMPANY, INC. NEW YORK 5, N. Y.



Good News for Telephone Users

FEDERAL EXCISE TAX ON LONG DISTANCE	FEDERAL EXCISE TAX ON LOCAL SERVICE
REDUCED FROM 25% TO 10%	REDUCED FROM 15% TO 10%

THE reductions in federal excise taxes, voted recently by Congress, mean substantial savings for telephone users. Your telephone bill is lowered by the entire difference between the old and the new taxes.

Instead of paying 25% on Long Distance calls, you now pay 10%. On Local telephone service, the tax is now 10% instead of 15%.

The entire amount of the saving in taxes comes off the bills of our customers. None of it is retained by the telephone companies.

The reductions went into effect on April 1 and apply to service billed to you on or after that date.

Now it costs you even less to keep in touch by telephone.

BELL TELEPHONE SYSTEM

BUSINESS WEEK

NUMBER 1284

APR. 17, 1954

Housing: Good, Can Get Better

- **New homes are being built at the 1953 rate.**
- **Mortgage money is abundant.**
- **The heaviest lid on house sales is the required down payment. A lot of people can't save that much.**
- **Builders are looking to Congress to cure that trouble by easing the terms of FHA mortgages.**
- **They think the law will pass, and they are already expanding their building plans for 1954.**

The housing business is hammering along this week at the same pace that produced 1.1-million new house starts in 1953 (BW–Jan.23'54,p30). Through March, the total of 232,000 private housing starts was only 6,000 units below last year. And the month-to-month gain as building weather improves is greater than in 1953.

These statistics are cheering. The outlook of builders and real estate people in the field is equally sanguine. New homes are selling well, though they need more salesmanship than a year ago. Mortgage money is more plentiful than it has been in years.

• **On the Dark Side**–At the same time, the industry is aware of trends that could make trouble:

• It's getting harder and harder to sell a used home, even a fairly late model, well built. Demand is strong, but mortgage terms are prohibitive.

• Fewer houses are being built for rental. For most builders it's "sell or nothing." Yet the lower-income families that usually rent aren't able to save up the money for down payment on a purchase.

• For these families and for others, mostly nonveterans, the down payment is more and more a Keep Out sign on the home-buying market.

Real estate people point to the down payment as the sticker for most prospective buyers. "Just the other day I sold a house for $8,500 that needed a $3000 down payment," says a midwest dealer. "I'll bet I had 25 buyers for it before I found one that had enough money in hand.

• **Cures on the Way**–For the remedy in these cases, the housing people are looking toward Washington. The Administration has prescribed a tonic of easier mortgage terms on both new and old houses, and Congress is working on legislation.

A housing bill has already passed the House, and the Senate will bring a similar bill to the floor after the Easter recess. Action may be delayed while Congress looks for loopholes that need plugging to prevent dishonesty (page 29). Even so, a bill could still be passed and signed by President Eisenhower by the end of May.

• **Easier Terms**–The House-approved bill sets the pattern for the new terms:

• It allows the Federal Housing Administration to guarantee repair and modernization loans for as much as $3,000 for five years, compared with present limits of $2,500 and three years.

• FHA terms for new houses will be extended to cover existing houses.

• The President will get authority to reduce down payments (as an example, from the present $2,400 on a $12,000 house to only $1,400), to increase the maximum allowable loan to $20,000 instead of $16,000 for a one- or two-family house), and to extend the permissible maximum term to 30 years instead of 25 years. All these provisions apply to FHA loans only.

• FHA will be allowed to insure loans for rehabilitation of housing in rundown urban areas. As an experiment in finding a substitute for public housing, the agency will probably get the power to insure loans, completely, with 40-year maturity and only $200 down payment, on homes up to $7,600 ($8,600 in special areas) for families displaced by slum clearance.

• **Timely Tonic**–If you talked to builders and brokers all over the country, as BUSINESS WEEK reporters did this week, you could see how these provisions could bolster the market.

Housing developers admit that they have been worrying about the peculiarities that have been growing up in their business. "There's something wrong," says a New Jersey developer, "when it's so much easier to borrow money for a new house than an old one, regardless of its true value."

In Detroit, a real estate appraiser referred to the low-cost development houses as "the future slums of America." But FHA won't guarantee a mortgage on a house more than 10 years old, and the pinch of pocketbook is forcing Detroiters out of the bigger, costlier, older houses and into the cheaper developments.

Used homes must be sold, however, or new houses will stand vacant. The only way most growing families can buy the bigger homes they need is to sell their old houses. Their equity gives them the down payment.

• **Trade-in Deal**–From this need comes the trade-in scheme that has been used with varying success. On the West Coast it has never caught on, but it is working well in the South and some midwestern cities.

A Rochester (N. Y.) operator has been taking old houses in trade for the past four years, about 50 a year. One builder in Salt Lake City estimates that one-third of the new homes sold in the area involved trade-ins. A builder in Little Rock says he uses the trade-in deal quite often. "It takes 60 to 90 days to finish the house."

• **Ups and Downs**–Price trends for older houses are pointing in all directions, depending on local conditions. Generally, prices have dropped and are firming at a more realistic differential from new-home prices.

In Rochester, however, a leading dealer says sales volume and price level for used houses are at an all-time high. In Los Angeles, too, prices of older homes are heading upward as people move closer in to town from the outlying development tracts. "People are tired of commuting," Los Angeles reports. Used-house sales and prices are picking up a bit in Boston, too, now that owners have quit demanding

palmy-day profits. The used-home market is level in Chicago, down in Detroit and Dallas, perking up a little in Cleveland.

"Boy, if Congress eases those down-payment requirements," a Columbus (Ohio) real estate man exults, "you'll see the older houses sell like hot cakes." And if Congress improves terms for the fixup work every new owner wants to do, the market will get a double boost, a California builder adds.

• **Mortgage Money**—The rosiest phase of the real estate business is the sudden flow of lending funds. "A year ago," says a Miami builder, "it was hard to line up a mortgage—now I get calls from all over the country asking if any of our local builders need mortgage money.

Cleveland and Atlanta are typical cities where, only six months ago, GI loans were discounted 5% and FHA loans nearly as much; now GI loans are 98% or 99% and FHA loans are practically at par. Conventional mortgages are going at 5% or even 4½%; banks hold to 12-yr. maturity, and savings and loan associations to about 20 years. In Chicago, some building and loan companies are lending at 4½%.

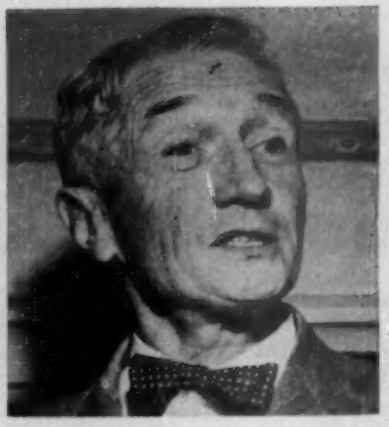
• **Raising the Sights**—With money so free and prospective buyers still interested, developers are expanding their plans for 1954.

In Atlanta, builders as a whole are believed to have added 10% to 20% to the number of units they plan to build. In Portland, Ore., one company hastily firmed up plans for 40 additional houses; another company sold $650,000 worth of houses in March, compared with $400,000 a year ago. In Boston, a builder said: "Cheap houses are really hot these days—we have 40 people lined up to get into our houses as fast as we can build them."

• **Can't Please Everybody**—It isn't all strawberries and thick cream for the developers, of course. For one thing, they are running into a shortage of improved land—in Ohio, land now costs up to 20% or 25% of the total cost of a house in some new developments. And municipalities are stiffening the zoning requirements, to get a better tax yield per acre.

• **Not for Rent**—As a national pattern, rental apartments are easy to find—their tenants have moved into homes of their own—but rental houses are scarce and 99% occupied. In some cities—Chicago for one—even apartments are tight. Not much housing is being built for rent.

Lenders still look askance at rental housing projects, even the FHA-guaranteed loans. The banks say they would rather favor home owners than renters. "So we still need a bushel of rental homes," sighed a Columbus real estate operator, "for $65 a month for people with 46 kids."



FHA BOSS Hollyday was involved in . . .

Housing Scandal

Exorbitant profits—and possibly frauds—are seen in juggling of FHA loans to spur housing.

The Administration this week uncorked public investigations of some strange goings-on in the housing business. The ins and outs of two Federal Housing Administration mortgage programs, it appears, have allowed for unduly large profits.

The story flared up when the Eisenhower Administration dropped FHA Commissioner Guy T. O. Hollyday, on the grounds that he had not acted with sufficient vigor to unearth scandals in his agency. The Mortgage Bankers Assn. of America promptly adopted a resolution calling the dismissal of Hollyday "unwise and unjust."

• **Double-Barreled**—Administration and congressional investigators are digging into (1) widespread fleecing of homeowners on house repairs and improvements financed by FHA-insured loans, and (2) windfall profits picked up by some apartment builders under the government's 1942-50 emergency rental housing program.

Both these situations open up possibilities of criminal prosecution in those cases where the federal statute of limitations has not run out. Many federal housing officials, local dealers, and builders are under the gun.

• **Repair Business**—The first field of investigation, sharp practices involving home repairs and improvements, has been in the public eye for a year or more (BW—May9'53,p154). The basic pattern of the racket goes like this:

A repair salesman calls at your door and convinces you that you need work done on your porch. He tells you it will cost $1,000. You agree to apply at the bank for an FHA loan. The salesman knows that the job is actually worth only $800. He turns the job over to a local builder, and he and the builder split the $200.

On the face of it, this would seem to be a common case of overcharging. But such sharp practices could hardly flourish if it weren't so easy for the homeowner to get an FHA-insured loan. The housing agency is used—unknowingly—to help the racket succeed.

• **The Law**—But there's still the problem of proving illegality in these cases. No official has said yet, for instance, that the certificate of completion for a home improvement job necessarily implies any false statement to a government agency, just because the purchase price is far in excess of the value of the work. Nor has anyone indicated any culpable negligence on the part of a lending institution that has met the requirement of investigating, in advance, the dealer or contractor. Apparently the only charge that could stick would be collusion between any parties to the fraud.

A national promotion campaign for fix-up jobs helped to boom FHA-insured loans of this kind to $1.33-billion in 1953.

• **Rental Housing**—In the other field of investigation, involving emergency rental housing, the possibility of illegality is even more tenuous.

The law that covered this type of housing was deliberately written with liberal provisions in order to encourage a lot of rental housing. It required an advance estimate of construction costs on each project. When the estimate was arrived at, FHA would insure a loan equaling 90% of the estimate.

Smart builders made hay of this law. With a loan in hand equaling 90% of expected costs, they would build an apartment house for perhaps 80% of the cost. This allowed them to finance a big construction job without risking a cent of their own capital. It also let them collect rents—set by FHA—pegged to a higher loan than was necessary.

A variation of this practice involved a corporation of builders. Having built a housing project for less than the FHA loan amount, they would split the difference among them. Then they would declare bankruptcy and let FHA take over the housing project itself.

• **Legal?**—The legal aspects of these operations are hard to pin down.

One point on which builders could be charged—along with FHA field or home office officials—would be collusion in getting an exorbitant construction estimate approved. And even here, the federal limitation on criminal violations may have expired.

The furor over the two investigations has delayed by at least two weeks, maybe more, the Administration's new housing bill (page 25).



BRITISH JET TRANSPORT, victim of seven crackups, four of them fatal, is grounded while experts seek a clue to the riddle . . .

What's Wrong with the Comet?

It has been not quite two years since British Overseas Airways Corp. on May 2, 1952 proudly flew the world's first commercial jet-powered airliner, the de Havilland Comet, from London to Johannesburg in 23¼ hours. In those not-quite-two years, no fewer than seven Comets have cracked up. In six of the accidents, the airplane was demolished; in four of these, 110 persons lost their lives. Here's the record: Three crashes were at take-off or landing. One was due to pilot error. The other three are unexplained.

May 2, 1953—A BOAC Comet crashed six minutes after taking off from Calcutta.

Jan. 11, 1954—A BOAC Comet blew up in the air, at about 26,000 ft., half an hour after taking off from Rome airport. All Comets were grounded pending a thorough check. After minor modifications were made, they were returned to service on Mar. 23.

Apr. 9, 1954—Less than three weeks later, another BOAC Comet blew up in the air, at about 26,000 ft., half an hour after taking off from Rome airport. All Comets have been grounded again, of course, and this time the British government has lifted the Comet's airworthiness certificate. Chances are the Comet I will never fly again; the future of the Comet II (not yet flying) and the Comet III (not yet in production) will remain uncertain until the basic cause of the trouble is identified.

• **Different Causes**—One thing seems certain: The cause was not the same in all seven accidents. The first two, for instance, were probably caused by a too-sharp "angle of attack." A piston-engine plane can take off at an angle of up to 15 deg. from the horizontal; a jet will stall at a much smaller angle—the exact figure depending on speed, air density, and other factors. The critical aspects of this whole problem were not fully understood at the start; in fact, up to the Karachi take-off failure in March 1953, the Comet cockpit was not equipped with an angle-of-attack indicator. This is mandatory on U.S. military jets and—since Karachi—on Comets.

The Comet that crashed at Calcutta, on the other hand, flew into a thunderstorm and, it is believed, was torn apart by the turbulence.

The cause of the two most recent crashes—they were so similar that it's almost certain they had the same cause—was probably different from any of the others. Whatever it was, it's going to be very tough to track down since both were over water. Some parts of the January plane, which landed in fairly shallow water, have been salvaged and are now being studied, but last week's crash was in water 3,000 ft. deep so no attempt at salvage will be made.

• **Possibilities**—It's certain that, whatever the cause, it happened suddenly, since both pilots were in radio contact with Rome, and neither mentioned any trouble. A good many possible causes are being considered. Among them:

Cabin pressurization may have failed suddenly. Cabin pressure of a Comet is maintained at 8,000 ft.; in a plane flying at 30,000 ft. you run the danger of the whole structure egg-shelling if a window blows out or the fuselage is breached. Even if the plane didn't explode, everyone aboard might be rendered unconscious by the sudden change in pressure and lack of oxygen.

A combination of high speed and turbulence may have torn the plane apart. When a piston-engine pilot runs into rough weather he flies around it, or throttles down and flies through it at reduced speed. But a Comet has a limited range, and gulps fuel in great draughts. It's not efficient at low speeds. So when a Comet pilot runs into rough weather, he's apt to try to blast his way through. And a combination of high speed and turbulence is very dangerous.

The "death ceiling" that newspapers have been talking about may be the jet stream—a ribbon of high-speed winds five miles up or higher that is often used these days by transcontinental or transoceanic pilots to boost their speed. The danger, according to one U.S. flight-safety expert, lies in going in and out of the stream at high speed. If you cross it at the wrong angle, or hit it nearly head-on, the resulting turbulence may be more than the airframe can stand. He suspects that the last two Comets ran into the jet stream at right angles.

Comet engines are mounted right in the wings, and many U.S. aircraft men think this is a basic fault. When a

wing-mounted engine blows up or catches fire or throws a turbine blade, they say, the wing is done for. But in the case of a pod-mounted engine, such as Boeing will use on its jet transport (BW–Mar.6'54,p112), engine failure will not affect the airframe itself.

Some U.S. government observers feel that fuel volatility may have been the cause. At 25,000 ft., they point out, the flash point of kerosene is lower than at sea level and there is still enough oxygen around to make an explosive mixture.

"The possibility of sabotage cannot be excluded," a British government spokesman said last week. Italian officials are screening everyone who had any contact with the two doomed planes while they were on the ground in Rome.

• **More Testing**—Ever since last fall, the British government has been carrying out extensive fatigue tests on a Comet. So far, it has flown 10,000 hours—more than three times as much as any Comet in service—with no failure of any kind. These tests are now being stepped up.

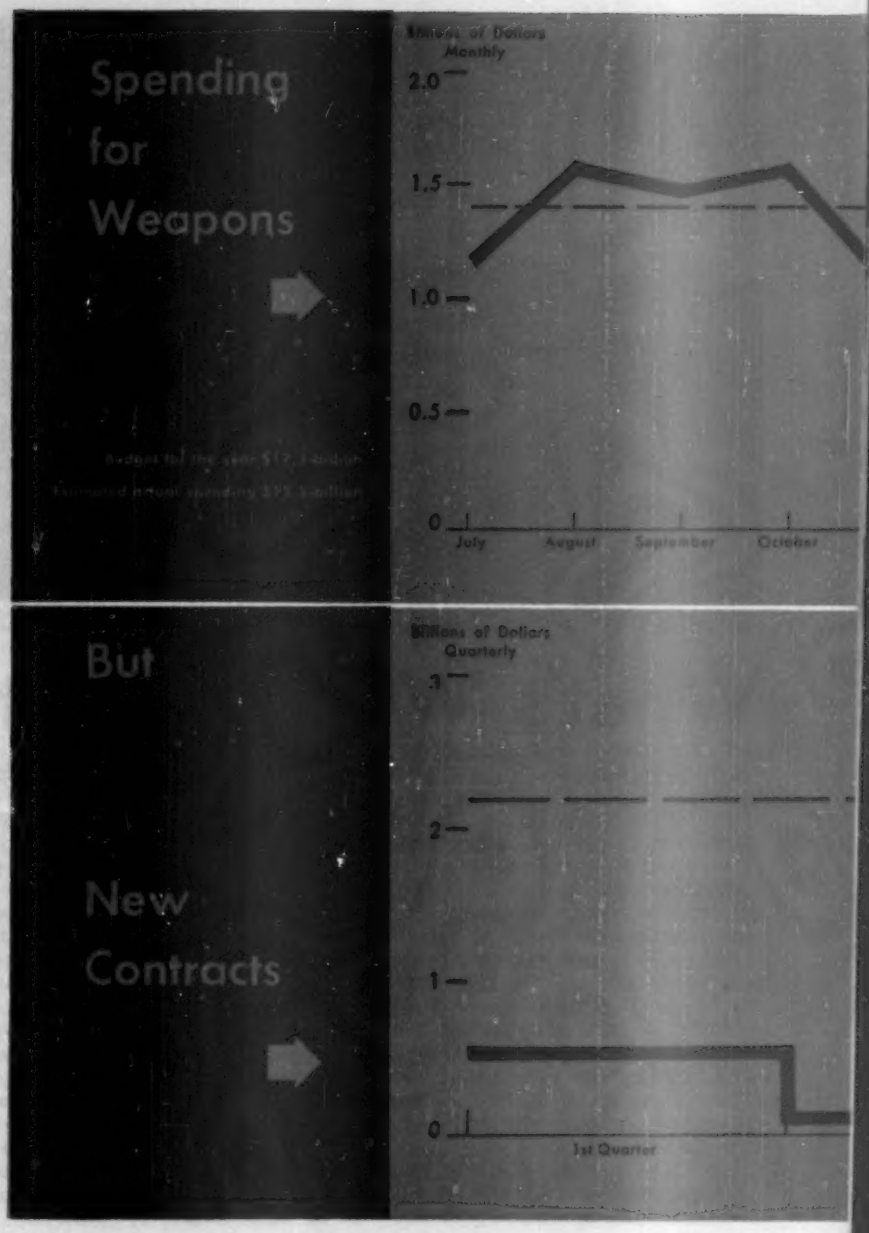
Capt. John Cunningham, de Havilland's top test pilot, who flew the first Comet in July 1949 and babied it through its initial development, plans to duplicate as exactly as he can the flight conditions of the Rome crashes, with complete instrumentation to show the start of trouble in the plane.

There's no question but that the series of crashes represents a blow to de Havilland, to BOAC, and to the British government, which had hoped to step up its dollar-earning power by getting as long a lead on the U.S. in jet-transport development as the U.S. has always maintained in piston-engine transports.

By the same token, American plane builders will probably do better because of it; Boeing's 707 and the others will have a clearer field than they had expected when the jet-transportation era really arrives.

• **Last Hopes**—At the beginning of World War II the British and American governments arrived at a joint decision on aircraft: Britain was to concentrate on the development of small, fast, short-range fighters; the U.S. had the major responsibility for the development of big, multiengine bombers and transports.

This decision gave the U.S. a tremendous lead in the first phase of postwar commercial plane development—the four-piston-engine transport. It gave the British a similar long lead in the development of jets. It was this lead they had hoped to capitalize on with the Comet—but that dream is now fading fast. The London Times calls the story of the Comet "the tragedy of an enterprise."



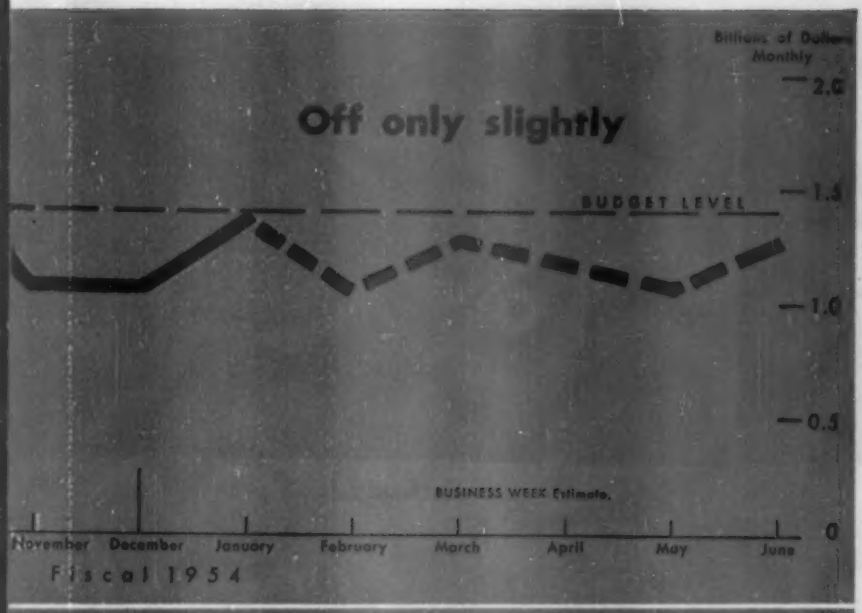
Which Is the Clue

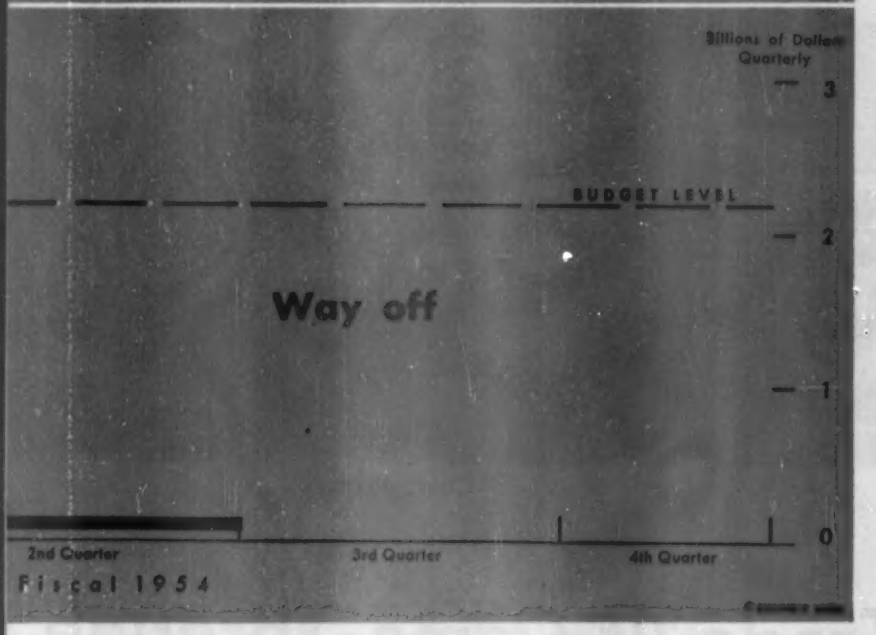
Which of the facts pinpointed in the charts above gives the tipoff to the Administration's weapons spending plans? That's the big question in a hot debate this week between civilian Pentagon chiefs and weapons makers.

• **Two Versions**—A year ago, the Eisenhower Administration got permission from Congress to order some $9-billion worth of new weapons this fiscal year. So far—with the year nine months old—it has signed contracts at a rate that would mean only some $1.5-billion worth of orders by end of the year.

On the face of it, that looks like a virtual drying up of new arms deliveries in 1955 and 1956. It does not mean exactly that—but Pentagon and weapons industry men will give you two different slants on exactly what it does mean.

Both sides agree that contract signing will have to show an upturn soon. Pentagon officials add that the drastic reduction to date will not affect future delivery of arms. Private industry sources say it will. They foresee a much sharper drop in weapons deliveries than has been hinted in any official Eisenhower budget figures. Here is how the arguments line up:





to Weapons Plans?

Pentagon officials say the true buying intentions of the military are disclosed in the spending program for finished goods, not in the current rate of contract signing. So far this fiscal year, spending has been some 10% below the budget (chart). By the end of calendar 1955—15 months from now—a spending rate of approximately $1-billion a month is implied in current figures.

Officials explain the gap between new contracts and implied spending 15-20 months from now this way: All that the holding back on contract signing has done so far is reduce the order backlogs for weapons. New contracts will be signed in time to keep up an even flow of actual deliveries.

Private industry sources say the lag on new contracts has already gone too far for this rosy future. They argue the cut has been too sharp and has lasted too long to have deliveries of weapons come anywhere near Administration figures. They say there was some backlog of orders, but that it was not so great as Pentagon officials believe.

If industry predictions materialize, some weapons-producing plants face shutdowns in a few weeks. Industry experts agree that the Pentagon is going to have to start signing contracts—and soon. But they think a lot of the new contracts are going to come too late to keep production flowing without a break. "You're not going to keep supply lines full without a contract," one pointed out.

• **Brewing**—Dollarwise, the shrinking of airplane contracts has been the greatest. To reach the level of the budget authorization, about $3-billion in contracts should have been signed in the first six months of the fiscal year. About $550-million worth were actually made. Electronics and guided missile contracts show percentage drops almost as great.

When figures are available for the January-March quarter, they may show some pickup in the rate of contract making, but private industry observers do not think it will be marked. Even Pentagon officials hint that the pickup will not come until later in 1954.

This raises the question: What will Congress say when it discovers that the $9-billion worth of contracts that could be signed this fiscal year are largely being passed up? Congress usually takes the stand that there's no sense in making new funds available if old ones are not being used. This might lead to a slash in obligational authority for fiscal 1955—and a downward adjustment of deliveries in the future.

Five Northwest Utilities Plan Big Hydro Project

One of the largest privately financed U.S. hydroelectric developments in history has been proposed by five Pacific Northwest electric utilities.

Jointly, the five utilities have organized a $50-million company to develop two sites in northern Idaho. The 536,000 kw. available there is well over a third of the existing generating capacity of the five parent companies. Speculatively, it is also reported that the new company's directors have considered development of the John Day site on the main stem of the Columbia River. The latter is an enormous project that U.S. government power development agencies have been proposing for years.

Kinsey M. Robinson, president of Washington Water Power Co., Spokane, is president of the new company, Pacific Northwest Power Co.

Estimated costs of the two northern Idaho projects—at the Bruce's Eddy and Penny Cliffs sites on the Clearwater River—range from $300 to $500-million. Parent companies, with 800,000 customers, forecast combined additional annual capacity requirements of 150,000 to 200,000 kw.

Some things did very well as people finally poured into stores this week to do their Easter shopping. Their last-minute buying spurt may have pushed 1954 sales up near last year's.



Cars up . . .

Some things did only so-so because 1954's consumer is a choosy individual. He wants quality, he wants bargains, he thinks things over carefully before buying. It adds up to . . .



Coats down . . .

Easter Trade: It Came Through

This week, in most parts of the U. S. the weather turned balmy, the sun shone, the skies were blue, and people poured downtown to shop. It was the answer to the merchants' prayers. Easter business was good.

On Tuesday, flash reports from BUSINESS WEEK reporters around the country showed that traditional spring buying finally had started with a rush. Here is a sampling:

Miami: "Easter business began to pick up here on Saturday."

Cleveland: "Sales hit a 1954 peak yesterday in many downtown stores. If the weather holds, it looks as if this will be the best week of the year."

Atlanta: "Department stores report heavy sales over the weekend, about equal to last year."

St. Louis: "Last night, crowds jammed downtown stores. A good gain this week will make this equal to the 1953 season."

Houston: "Paced by children's apparel, retail clothing sales came out of the woods with a mighty roar."

Boston: "Last Saturday was spring and I never saw bigger shopping crowds in downtown Boston."

• **Saving the Day**—This was the last-minute surge that people had been hoping for. It saved the day. Up until the weekend, sales generally had been running pretty well behind 1953, and no one hoped for much. In part, of course, the late Easter this year made the figures look worse than they were. But other factors put a damper on sales as well. Bad weather had a hand in it: Cleveland and Detroit, for instance, had the worst weather of the winter right at the very end.

• **Like a Lamb**—March turned out to be only mediocre. The Dept. of Commerce flash report for the month, issued on Apr. 10, showed that total retail sales were down 5% from the same



. . . dresses good . . .



. . . kids' clothes wonderful.



. . . appliances dead . . .



. . . men's clothes ho-hum.

at the Last Minute

month in 1953. This was the seasonally adjusted figure, which took account of the late Easter. In other words, March was a little worse than the preceding months of the year. February had been 4% off the same month of 1953, January had been off 2%.

As before, the biggest part of the drop during March was in durable goods, off 11½%. Cars were off 10%; lumber, hardware, and building materials were off 13%. Nondurables dipped only 1% over-all, though apparel stores showed a 12% drop from the year before.

• **Near Target**—It remains to be seen how far this week's upsurge will go toward getting retailers out of the hole. Most retailers agreed with the one who said, "We'll have to get a hell of a push this week to equal last year's Easter season." But here and there you found merchants who thought last week's push had done it. In Milwaukee, for example, several big stores felt pretty sure to come close to 1953, and at least one merchant figured he'd beat it.

There are, of course, regional variations. In New York, the merchants were confident all along that things would turn out well. They argued that New York, with its diversified industries and commerce, had never ridden the Korea war boom, so it isn't feeling the downturn so sharply now. On the other hand, Detroit, with its industrial unemployment, is hurting and says so.

• **A Child Shall Lead**—No matter what the over-all regional differences, the big thing everywhere this Easter is children's apparel. Sales ranged from good to sensational. As one Chicago merchant commented, "The kids seem to get whatever there is to spend." To which a Los Angeles man added, "If there's anything left over, the husband and wife will buy clothes for themselves."

In other words, business in adult apparel was spotty. Dresses seemed to do the best. In Boston, for instance, the trade attributed the strength of

dresses to the fact that designers have used new styling and smart colors. Conversely, in Los Angeles they were laying the slowness in coats and suits to "not enough changes in styling."

The report from Memphis pretty much hit the women's and children's apparel business on the nose: "Coats and suits are off a little; dresses are up a little; children's clothes are doing fine."

Men's clothes range all over the lot. A national chain of men's apparel stores said that New York City would equal last year's but that they would be off in other cities.

• **Other Departments**—Here are how the major lines not usually associated with Easter buying stacked up:

Appliances. Despite some evidence of an upturn here and there, general appliance sales, as one Cleveland man put it, are "dead."

Home furnishings. Reports from various parts of the country are contradictory. On the whole, though, they struck a buoyant note.

Automobiles. The automotive market turned out to be one of the really bright spots in the Easter sales picture. It looks as though there has been a genuine turn-up in auto sales (BW—Mar.6'54,p29).

• **On Auto Row**—In Boston the word was, "No one seems worried." Philadelphia reported the biggest week in eight years at a major used-car auction. Atlanta and Miami said they couldn't detect any improvement in sales. But in Cleveland a Buick dealer countered with this comment: "The lookers have now come back—with money in their pockets."

The patterns that have dominated the retail auto picture during the past few months were still present. The relentless battle for sales between Ford and General Motors is making it tough for other makes. Though unit sales remain high, dollar volume is off.

For example, a Chicago Ford dealer has sold about the same number of cars as in the spring of 1953, but his dollar volume is down 16%. Profits are likewise being squeezed. A lot of dealers report that they lose sales over the difference of a $10 bill.

When people do buy cars they want the works—heaters, radios, automatic transmission, and all. Cadillacs are still going strong, and dealers are writing orders now for delivery in July and August. The ratio between cash and credit sales remains about the same.

• **Model Customer**—This raises an interesting question: What does the consumer of 1954 look like? What has he got at the back of his mind? What is he going to do? A profile of the consumer, as he shapes up from BUSINESS WEEK reporting, looks something like this:

Above all, he's cautious. The consumer of 1954 has money but isn't rushing to spend it. Many merchants point out that the consumer is buying closer and closer to his needs. The way he held back till the last week before Easter is a good example. On the other hand, a lot of retailers think the consumer has merely gone back to an old habit of waiting for a lower price level.

In any case, the 1954 consumer shops and shops and shops before he buys anything. Says a St. Louis merchant: "I see them come into the store in the morning. Then I see them come back about 4 or 5 in the afternoon and perhaps make a purchase. They are just looking to get the most for their money."

• **Bargains But Quality**—In short, the consumer is looking for bargains. All over the country, merchants say they never saw so many pre-Easter sales and they never saw them start so early. It was the only way to lure customers out.

The consumer wants quality. One Midwest merchant said that he couldn't attract trade by cutting the price of his cheap workshirts from $1.29 to 98¢. But he packed 'em in when he cut his good line from $1.79 to $1.33.

Available evidence confirms a trend that came to light a few months ago: It is the higher-priced goods and the quality stores that are making out the best. The stores that appeal to lower-income groups have been hit along with the wage earner, who had his overtime cut and may even have been laid off.

Another Vote on Niagara

The Budget Bureau has written a letter favoring development of power by New York State rather than by private companies.

Niagara Falls has two principal uses: honeymooning and hydroelectric power. The first use poses no problems, for there is enough water for everybody to look at. The second use, however, forms the basis of a bitter, long-drawn-out argument between Gov. Thomas E. Dewey's New York State Power Authority and the state's five leading private electric companies. Both groups want the right to develop Niagara's water for power.

It's up to the federal government to decide. The question, involving private vs. public power, is an uncomfortably hot one. It has been passed around Washington for a long time, and now rests in the hands of the Senate Public Works Committee. The committee is mulling over four bills on the subject.

Last week, the powerful Budget Bureau aligned itself formally with the public power faction. In a letter to the Senate committee, the U.S. agency singled out one of the four bills as most consistent with the Administration's present program. This was the bill of Sen. Francis Case (R., S.D.); it recommends that the decision be turned over to the Federal Power Commission.

Since the Federal Power Act gives preference to municipal and state bodies in issuance of power licenses, the Case bill is considered pro-public power. It's favored by Gov. Dewey.

• **Background**—Behind this dispute is an estimated $61-million-a-year worth of electric power, which now pours unharnessed over the U.S. side of Niagara Falls for the benefit of honeymooners alone.

This power belongs to the U.S. under a 1950 treaty with Canada. The treaty said that a specified amount of the Niagara water not already being used for power was to be left alone, so that the spectacular waterfall would not be reduced to a meager dribble in years ahead. The rest of the water was to be shared equally by Canada and the United States for hydroelectric purposes.

The federal government thought at first that it might like to develop this power itself, but later it backed out. Canada, meanwhile, went ahead and started building facilities. It now has 848,000 kw. of capacity installed at the falls and another 1.3-million kw. under construction. The U.S. has 454,000 kw. installed—all of it in old plants that were built in the 1920s.

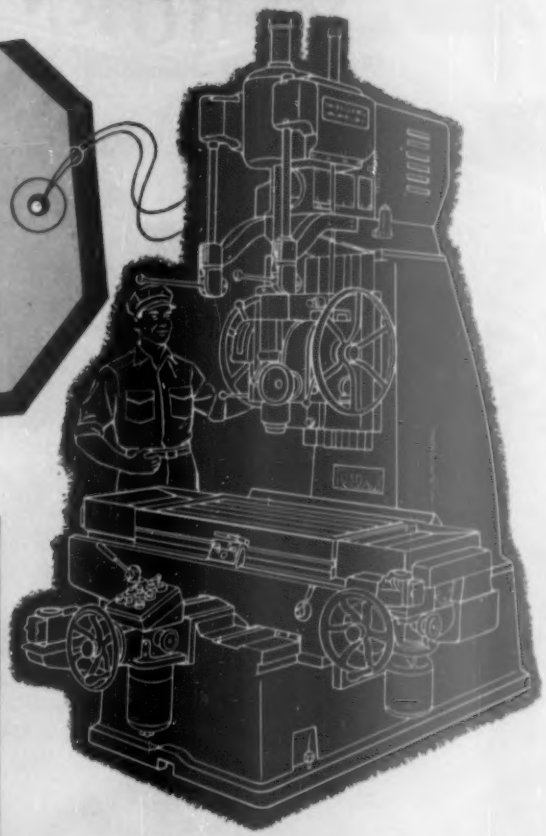
• **Chances**—In ratifying the 1950 treaty, the Senate reserved for Congress the right to decide who should develop the U.S. share of power. If this reservation had not been written in, the question would have been decided in due course by FPC. As it is, a decision still seems a long way off.

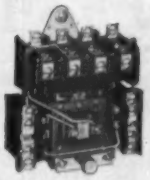
How much weight the Budget Bureau's letter will carry is anybody's guess. In informal polls, the Public Works Committee has indicated that it leans seven to six in favor of Gov. Dewey's power authority. However, Sen. Edward Martin, Pennsylvania Republican and chairman of the committee, favors the private power companies. If he thinks the private power bill might get an unfavorable vote, he will probably bottle the decision up until the next session of Congress.

FOSDICK JIG BORER

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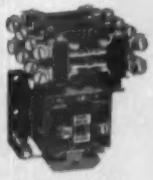




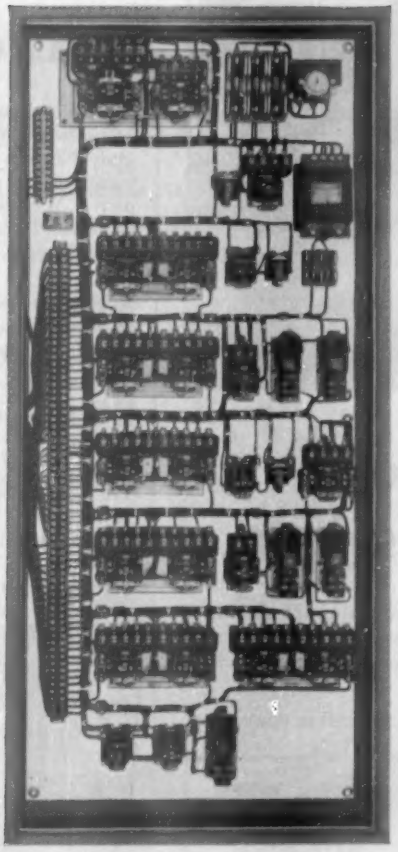
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BUSINESS BRIEFS

Rediscount rate cut to 1¼% was announced by the Federal Reserve Bank of Chicago. Other Reserve banks were expected to follow suit on the rate, which was dropped in February to 1¾% from 2%.

•

Savings bonds sales hit a peacetime high for the first quarter. The Treasury Dept. reports sales of E and H bonds were $1.4-billion for the three months, topping the 1953 period by 15%. March sales were $474-million, a 20% rise over 1953.

•

Only yesterdays are left for Today's Woman. Despite its 1.2-million circulation, the eight-year-old woman's magazine has been folded by Fawcett Publications, Inc. Fawcett blamed a 34% drop in advertising revenue in the first two 1954 issues.

•

The color line is drawn at Wentworth Mfg. Co.'s new plant in Florence, S. C. Only Negroes will be hired by the division of the Fall River (Mass.) company. Wentworth has another plant at nearby Lake City; it bears a "whites only" label.

•

Rebels have won control of the board of directors at R. Hoe & Co., Inc., maker of printing presses. A nine-month proxy battle (BW—Apr.3'54, p118) ended when the antimanagement faction won six seats on the 11-man board.

•

The pioneer atom power plant will be built on the Ohio river, about 25 miles northwest of Pittsburgh. The site, near Shippingport, was picked by Duquesne Light Co., which will build and operate the plant under agreement with the Atomic Energy Commission (BW—Mar.20'54,p31).

•

Cigarette "White Paper": The tobacco industry has blasted back at claims that there is a connection between lung cancer and cigarettes (BW—Dec.5'53, p58). Its 18-page document presents an assortment of medical statements that there is no proof of such a connection.

•

Missouri Ordnance Works will be leased from the government by Hercules Powder Co., with an option to buy for $3,625,000. Hercules is exercising its rights, as builder and first operator of the plant, to take it over at the highest bid offered to the Corps of Engineers. The plant has an annual capacity of about 42,000 tons of ammonia.



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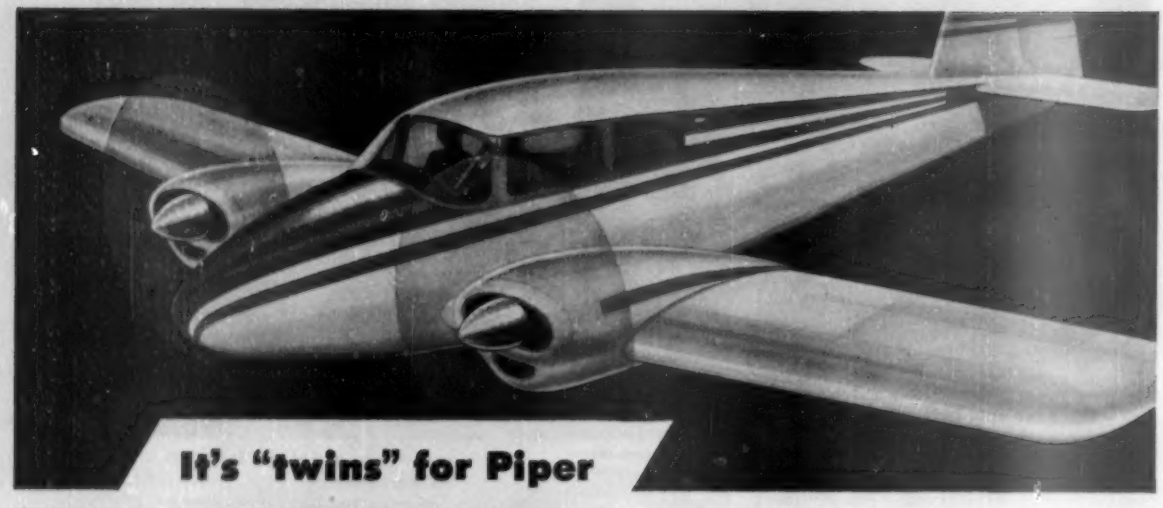
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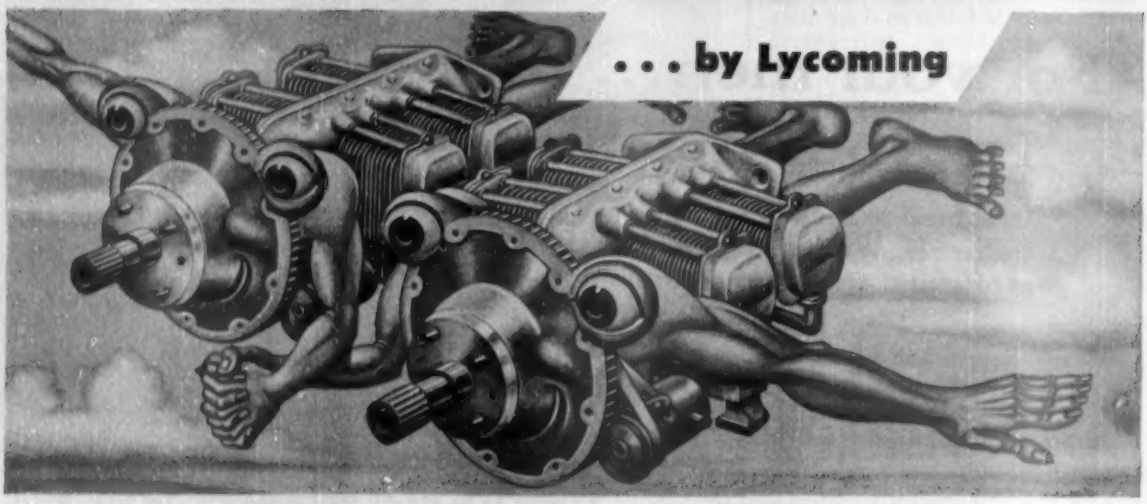
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WASHINGTON OUTLOOK

WASHINGTON
BUREAU
APR. 17, 1954



There are big risks in the stand on Indo-China. Secretary Dulles' goal is a 10-nation alliance pledged to prevent the Reds from taking over in Southeast Asia. It's a real threat to Communist ambitions there. Washington discounts the possibility that it could touch off World War III. But there's no mistaking the readiness to intervene in the Indo-China fighting, if Red China takes a direct hand. The underlying considerations to keep in mind:

The U.S. feels the West has superior military might today—is ahead in the A-and-H-bomb race. So, the calculation goes, the West is in better position to back a "no appeasement" policy than it may be later on.

The challenge, pointed at Red China, really aims at Russia. Russia is the Communist arsenal. Without Russia's help, Red China couldn't have moved into Korea, where we were fought to a standstill. And without Russia to help her, Red China can't afford to move troops into Indo-China.

The crisis period will be late summer and early fall. Anti-Red forces in Indo-China probably can hold their ground through the rainy season. The showdown will come when fighting conditions return to normal.

—•—

Congress backs the Indo-China stand. There are complaints, centering on failure of the Administration to keep Congress informed. And grumbling —about the weakness of diplomacy in heading off what could be a new Korea, or something much bigger. And reservations, on the use of ground troops. Politically, it would be embarrassing for the Republicans to back fighting, after the issue made of Korea. But a week-long poll of the key leaders, as well as rank-and-file members, of both parties, shows:

Eisenhower will have a pretty free hand. Typical of the comments made: "He's a general. But he's against another war. If he wants a showdown, then let's have it and get it over."

But there's insistence on U.N. participation. "We don't want another 90% U.S. war, with our allies picking up 10% of the check."

And insistence on freedom for Indo-China. Member after member said: We shouldn't back France's colonial policy.

—•—

The Geneva conference will be a diplomatic test. It was scheduled to bring agreement on Korea. But France insisted that the Indo-China war be included. A settlement is possible, but not expected.

Congress will vote $1-billion plus for Indo-China. That's for arms to equip local troops, now being drafted. Military leaders figure that it should be enough to defeat the local Reds. The big question is what Red China will do. She is supplying arms to local Indo-China Communists, and technical assistance, too (matching our efforts). If she puts in fighters as well, then we must call her hand, or take defeat.

—•—

Parts of the tax revision bill may be dropped in the Senate. The Senate Finance Committee is impressed by arguments that language to clarify legal points on such things as partnerships, corporate disbursements, and the like, actually complicate matters. Unless tax lawyers can come up with agreements within a few weeks, some of these provisions will be abandoned.

Extra tax relief for individuals still depends on Eisenhower. Politicians want it, as a vote getter. The big push comes from the Democrats.

Splits within the party weaken chances, however. Sen. Byrd of Virginia, for example, is lining up Democratic support for the White House.

—•—

Washington feels easier on the business outlook. Signs of a leveling are showing up. Government economists are constantly in touch with experts in business, hunting for shifts that might show up ahead of the official statistics, always late. They are finding some reassurances now.

No quick upturn is expected. The comfort comes from the fact that the slide is slowing—an indication that the bottom of the dip may be close.

June will be the rough month on unemployment. That's when you get a big rise in the labor force—boys and girls coming out of school. It's a seasonal development. Washington won't be much worried if unemployment runs upward of 4.5-million—big, compared to recent times. It will figure on a sharp decline in the fall, ahead of elections, when schools open.

—•—

A legislative log jam seems unavoidable. Congress has its eye on an early July adjournment. That means that the next 10 weeks will be packed with action—on appropriations and on Eisenhower's legislative proposals. Appropriations are a little ahead of schedule, especially in the House, which must start all money bills. But much of Eisenhower's program still is in committee, with some of it just starting.

—•—

Flexible farm price supports, for example, haven't yet reached first base. Sentiment among farm state congressmen is to vote down the proposals made by Agriculture Secretary Benson and keep present high-level supports. Backing for this is coming from labor unions who dream of a farm-labor party.

Revision of Taft-Hartley is bogged down. Eisenhower wants revision—wants it badly, to keep his campaign promise of labor law changes. But he may have to settle for nothing on this issue. And other measures in which labor is interested are off to a slow start—Social Security liberalizations, for example, may be left hanging for next year.

—•—

Are all labor benefits bargainable? Watch for the NLRB's decision involving oil. The Richfield Oil Corp. of Los Angeles set up a plan for a joint employee-company stock purchase arrangement (BW—Dec.5'53,p86). The union stopped it, claiming the company's contribution was a part of employee benefits. NLRB's counsel bought the argument. He will argue before the board that the company should bargain with employees on the question. The board ruling will set a precedent—whether companies can give benefits that are not subject to union demands.

—•—

The housing scandal wasn't unexpected. It has been in the making for years. Truman's administrators knew all about it on apartments. In fact, it was threatened as an issue in the 1952 campaign (BW—May10'52,p24). The question now is whether Eisenhower, after being in office since January, 1953, can get out from under.

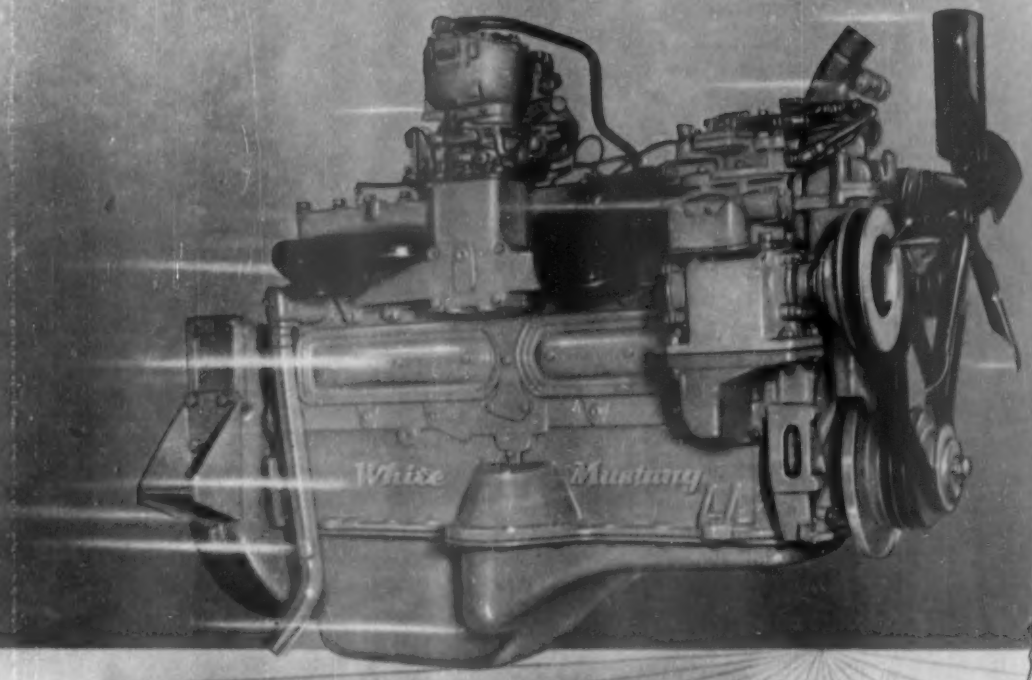
REA skeletons may be the next to rattle. The Republicans are looking into several big loans made by rural electrification under the Democrats. The suspicion is that loan regulations were short-circuited for party gain.

You can expect more exposes as election time nears.

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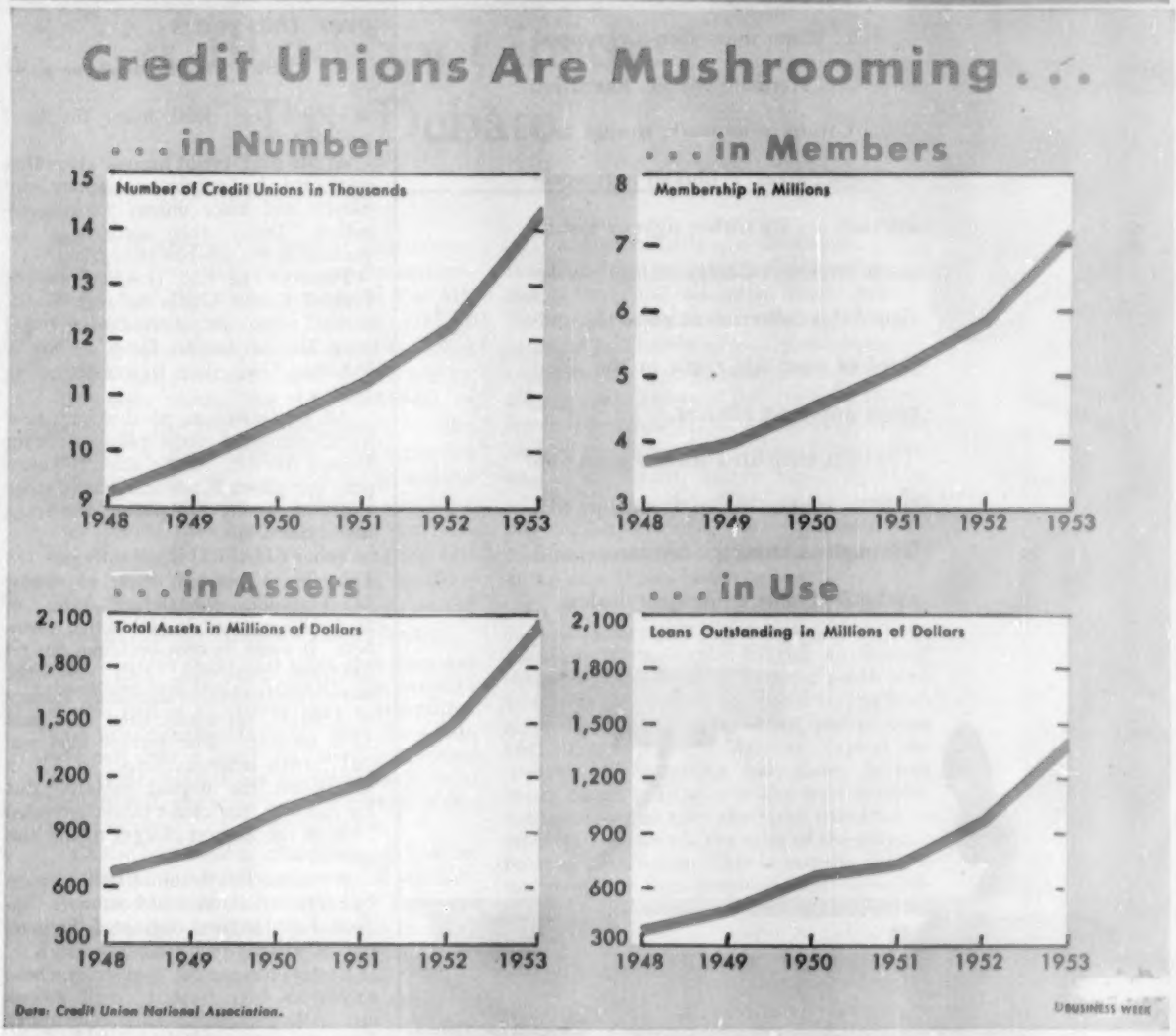
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Workers Make Good Bankers

Credit unions—the cooperative savings and lending organizations set up by employees—are growing fast. In five years:

• The number of such unions has risen 54.3%, from 9,331 to 14,398 (chart, above).

• Membership has almost doubled, from 3.7-million to nearly 7.2-million.

• Loans outstanding, as of Jan. 1, were $1.4-billion, as against the earlier $398-million.

• Assets have risen from $701-million to over $2-billion.

• **Answering a Need**—The biggest single reason for the meteoric rise of the credit unions is the continuing need among workers for a place where they can borrow money at reasonable cost to meet medical bills, pay for autos and other major purchases, pay tuition fees for children, and the like. In some communities, the banks still frown on these small loans, leaving the worker at the mercy of the loan shark.

A secondary cause is the fact that thousands of workers, for the first time in their lives, are making enough money to do some saving. The credit union gives them a safe haven for their spare cash, and pays interest ranging from 0.5% to 6%. The average is around 3%.

• **German Ancestry**—Credit unions can be organized under federal or state charters. Technically, they don't accept deposits. Instead, the members buy shares, just as they do in savings and loan associations. Interest payments are called dividends.

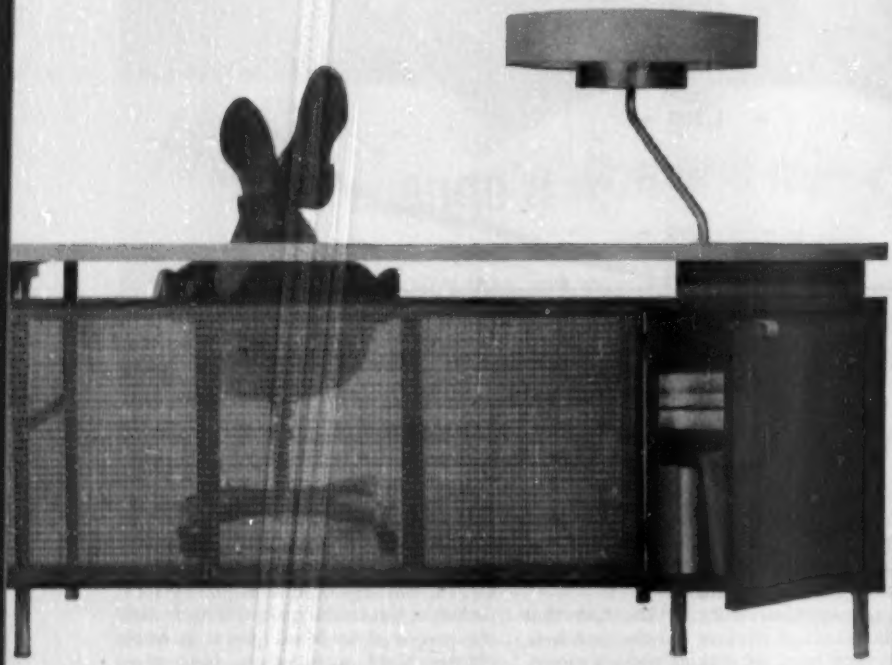
The idea of the credit union, in its present form, appeared in Germany 106 years ago. But it was not until 1909 that the first unit was set up in the U. S. It was organized by Alphonse Desjardins, a humanitarian and writer, with the people of St. Marie parish in Manchester, N. H., as members. Nine years earlier, Desjardins had set up the first credit union, La Caisse Populaire de Levis, in the Western Hemisphere, at a parish in Quebec.

• **Harpoon**—In the year the Manchester union was started, Massachusetts passed the first general legislation covering credit unions, under the prodding of Edward A. Filene. The millionaire merchant argued that the unions were needed to drive out loan sharks in the Boston area who were charging as high

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". . . EHAFCU has a loss record of 'less than 1%' over the years . . ."

CREDIT UNIONS starts on p. 41

as 500% on small loans for brief periods.

At the start, credit unions were often sponsored by employers, or by employers and labor unions working together. Today, they are usually organized by the workers themselves.

• **Pioneer**—The East Hartford Aircraft Federal Credit Union belongs to the earlier type. It received direct aid from United Aircraft Corp.'s Pratt & Whitney Div. when it was set up in 1935.

All the members of this largest of federal-chartered credit unions work for United Aircraft. At the start, the company subsidized it, providing office space and equipment, and paying the treasurer's salary.

Today EHAFCU is self-sufficient. On Feb. 28, it boasted assets of almost $11.3-million, outstanding loans of $6.3-million, and 26,800 active members. It owns its own building, has 64 full-time employees. Last year, the members maintained an average balance of $391.47, on which they were paid 3¼% interest. The average loan was $437, with interest charges of 1% a month on the unpaid balance. But for the year, the credit union refunded 20% of the interest charges to the borrowers.

It was the fourth time that the union had returned interest to borrowers. Indeed, East Hartford originated the practice of making such interest refunds.

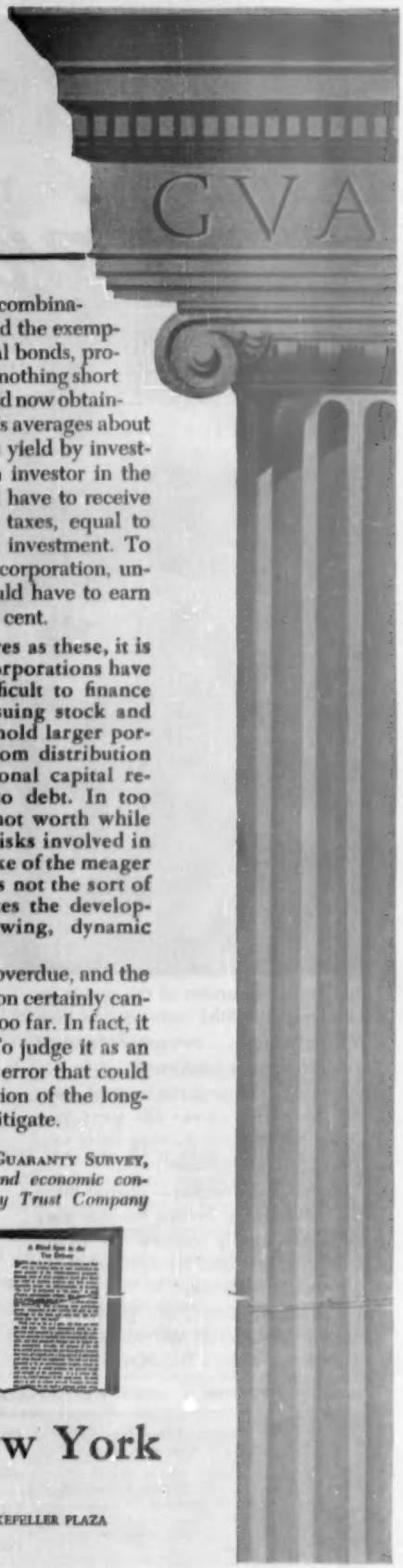
• **Roster**—Among the companies whose employees have formed credit unions are: Allis-Chalmers, Dow Chemical, Eastern Airlines, Lockheed Aircraft, National Cash Register, Standard Oil (N. J.), Gulf Oil, Shell Oil, Republic Steel, Swift & Co., dozens of railroads, and virtually all automobile and parts makers.

One of the largest state-chartered outfits is the Municipal Credit Union in New York City, sponsored by city employees. It was organized in 1916 with 19 members and $570 in capital. Today the union has over 40,000 members and assets of close to $11.4-million. Last year it made 16,178 loans, with a loan balance of $8.7-million at the end of the year.

As a rule, the credit unions have done well in placing their loans. EHAFCU has a loss record of "less than 1%" over the years. The big New York City Municipal Union also reports extremely small losses.

• **Worker-Directors**—Most credit unions in industrial companies are run by

A Blind Spot in the Tax Debate



BOTH sides in the present controversy over Federal tax revision seem to have overlooked the main purpose of the Administration's proposals. Because most of these proposals would give direct tax relief to business concerns and their owners, opponents accuse the Administration of favoring "the few" in preference to "the many." A more effective anti-recession weapon, they argue, would be to reduce excise taxes or raise individual income-tax exemptions, thus increasing mass purchasing power. Supporters of the revision bill reply that "the few" create jobs for "the many," so that tax relief for business would most effectively stimulate employment.

While true as far as it goes, this does not meet the real issue. Actually, the purpose of the bill is to correct grave inequities and uneconomic features that have developed over a long period of piecemeal and often biased tax legislation. It is a reform bill, not a tax-relief measure in the usual sense.

Of the hundreds of changes contained in the bill, all but a few are accepted without dispute. Most of the controversy has centered on the proposals to reduce the discriminatory tax on dividend income and liberalize depreciation allowances for new plants and facilities.

The tax on dividends has been a subject of complaint for eighteen years. Until 1936 dividend income was exempted from the individual income tax on the ground that such income had already been taxed in the form of corporation earnings. Since that time, dividend income has been taxed twice—once to the corporation and once to the receiving stockholder. The important point, however, is not that it is a double tax but that it is a discriminatory tax. The corporate stockholder, as an individual and as a partial owner of the corporation, pays more than his share.

This discrimination, in combination with high tax rates and the exemption of State and municipal bonds, produces some results that are nothing short of fantastic. The rate of yield now obtainable from tax-exempt bonds averages about 2½ per cent. To equal this yield by investing in corporate stock, an investor in the highest tax bracket would have to receive annual dividends, before taxes, equal to nearly 28 per cent of his investment. To pay such a dividend, the corporation, unless a very small one, would have to earn at the rate of nearly 58 per cent.

In the face of such figures as these, it is easy to understand why corporations have found it increasingly difficult to finance their capital needs by issuing stock and have been forced to withhold larger portions of their earnings from distribution and to meet their additional capital requirements by going into debt. In too many cases, it simply is not worth while for investors to take the risks involved in stock purchases for the sake of the meager returns obtainable. This is not the sort of tax structure that promotes the development of a strong, growing, dynamic economy.

Basic tax reform is long overdue, and the bill now under consideration certainly cannot be criticized as going too far. In fact, it marks only a beginning. To judge it as an anti-recession device is an error that could result in further continuation of the long-standing evils it aims to mitigate.

From the April issue of THE GUARANTY SURVEY, *monthly review of business and economic conditions published by Guaranty Trust Company of New York.*

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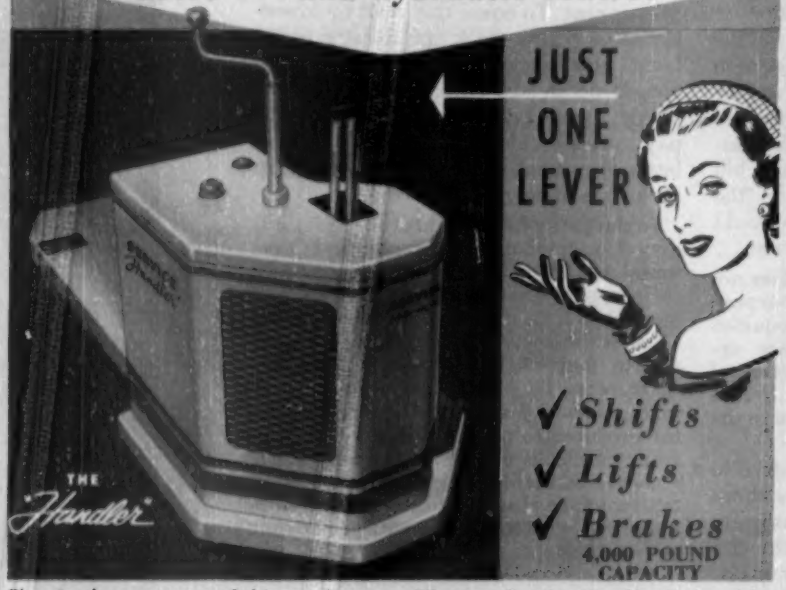
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RIDER-TYPE — means covering the plant in quicker time, reducing the overall cycle time.

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SERVICE CASTER & TRUCK CORP.
ALBION, MICH. • SOMERVILLE, MASS.

Manufacturers of CASTERS • WHEELS • TRUCKS • LIFTERS • LIFT TRUCKS • SPECIAL EQUIPMENT

MAIL Today

Service Caster & Truck Corp.
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Please quote prices on _____ SERVICE HANDLERS with platforms of _____ size.
( ) Have salesman call.

COMPANY _____
ADDRESS _____
CITY _____ STATE _____
INDIVIDUAL _____

". . . most companies help out by providing payroll deduction of installment loan repayments . . ."

CREDIT UNIONS starts on p. 41

a board of directors chosen from the worker-members. EHAFCU has 15 directors, all aircraft employees.

Most companies help out by providing payroll deduction of installment loan repayments, if the credit union requests it.

Some companies, though, are skeptical of credit unions. They question whether the average worker, with no special knowledge of investment or finance, should have the responsibility of making investments or deciding to whom money—and in what amount—should be lent.

• **Guidance**—In actual experience, the laymen directors seem to be doing all right—guided by the fairly narrow and well-lighted paths charted for them by federal and state officials. Indeed, they have relatively little discretion in many respects.

Federal-chartered credit unions, which operate under rules laid down by the Dept. of Health, Education & Welfare, may not make a loan to any individual exceeding 10% of the paid-in and unimpaired share capital and surplus. The various state regulatory bodies also set lids on the size of loans that can be granted members.

The federal-chartered credit unions are limited to a maximum interest of 1% a month on the unpaid balance. The top rate in state charters is usually the same, or 6% on a discount basis, which figures to be very close to 1% a month.

In handling surplus capital, the federal-chartered unions put it in savings banks or invest it only in (1) loans to members, (2) in the shares of savings and loan associations, which are insured by the Federal Savings Loan Insurance Corp., (3) government bonds, or (4) loans to other credit unions.

State charters also explicitly limit investments of surplus capital to conservative issues of the type prescribed for savings banks and other institutions. For instance, New York State sets limits for the union similar to the federal rules plus some municipal and state bonds. The big Municipal Credit Union may buy the bonds of utility and telephone companies operating within the state.

• **Going Up**—For the future, the trend is up. A number of credit unions are liquidated each year because would-be borrowers take their business to banks and private finance companies. But the number of new unions organized is far larger than the number that fold.



A WELDER'S TORCH STARTED *BOTH* OF THESE *FIRES*



One was the biggest single plant fire in history. Touched off by sparks from a welding torch, it took three lives, injured thirteen, and completely destroyed a relatively new $35,000,000 "noncombustible" building.

The fire at the Meier & Pohlmann Furniture Company plant, St. Louis, Mo., started the same way. Sparks from a welder's torch . . . ignited highly flammable lacquer fumes. Why didn't this plant *too* go up in smoke? A Grinnell Automatic Sprinkler System extinguished most of the flames before firemen arrived.

Most fires start small. They can be brought under control if properly attacked within the first few minutes. Grinnell Sprinklers stop fire at its source, wherever and whenever it strikes, night or day, with *automatic* certainty. Seventy-six years experience proves this.

And now, with the new Grinnell Automatic *Spray* Sprinklers, you get even greater protection against fire. *Less water puts out more fire.*

Measured against the loss of a plant, and the many indirect losses suffered in a fire, the cost of a Grinnell Sprinkler System is a small price to pay for around-the-clock fire protection. A Grinnell Sprinkler System often pays for itself in a few years through reductions in insurance premiums. So, if you have fire insurance, you're probably paying for Grinnell Protection anyway . . . *why not have it?* For complete details, mail coupon below.

GRINNELL
PROTECTION AGAINST EVERY FIRE HAZARD

Manufacturing, Engineering and Installation of Automatic Sprinklers Since 1878

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Please send me your new illustrated booklet, "Grinnell Automatic *Spray* Sprinklers".

NAME .....
TITLE .....
COMPANY .....
STREET .....
CITY ..... ZONE ..... STATE .....

how much light for a dollar?

In lighting, first costs are not real costs! Real costs are the sum of first costs including installation *and operating and maintenance expenses during the life of the system.*

Time and again, fewer Smithcraft lighting units are required to produce recommended lighting results. So your first cost is lower, and your really big savings are in the lower power and maintenance costs that go with fewer units.

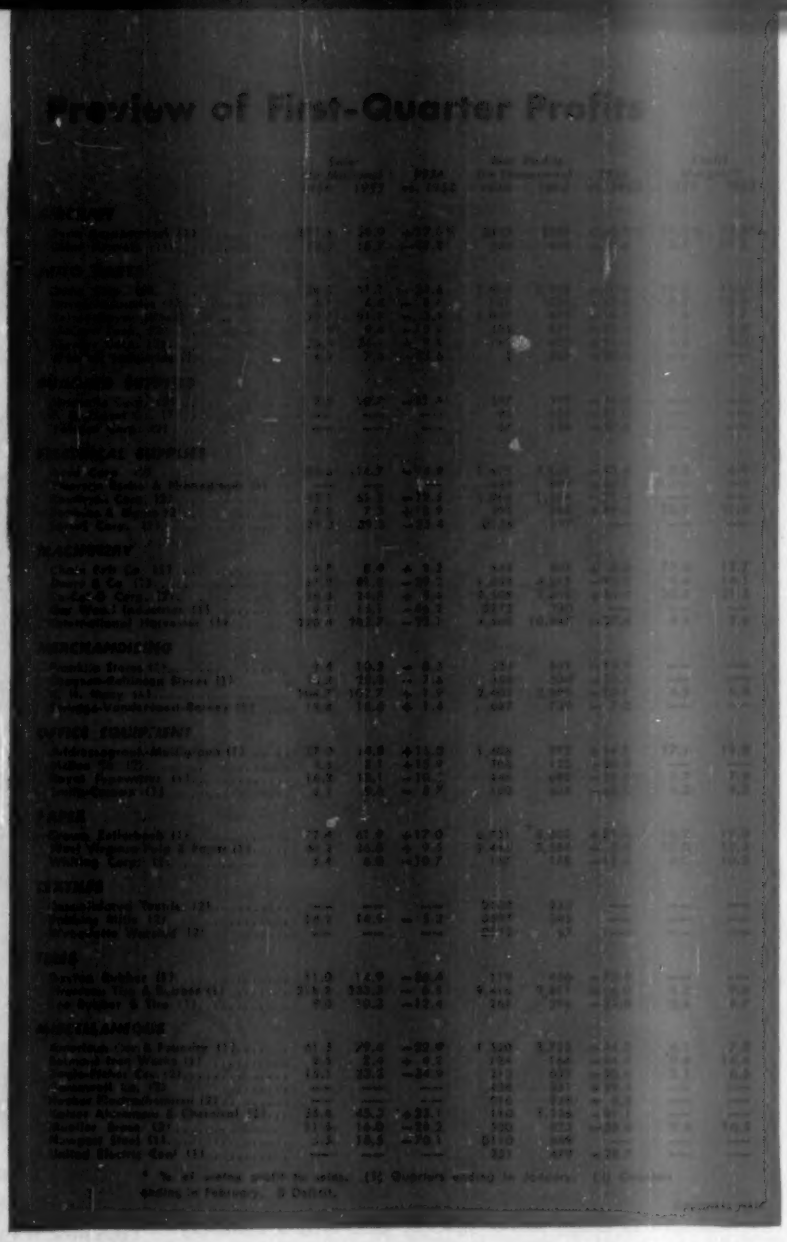
On a typical factory installation lighting 20,000 square feet the Smithcraft A. L. S. Factory Lighting Unit will save roughly $8,000 over ten years, when compared with a typical industrial unit with 6-10% up-lighting (design and performance conforming with RLM standards).

So, it's possible to enjoy the benefits of the finest lighting money can buy and effect really substantial savings at the same time, simply by buying the right fixture.

Ask us to send you our A. L. S. Factory Lighting Folder.

BUY LIGHTING . . . NOT FIXTURES — INVEST IN AMERICA'S FINEST FLUORESCENT LIGHTING





The Picture Isn't Too Rosy

Bulls and bears are agreed on one thing: Stockholders are going to get some mixed reading with the flood of first-quarter operating reports.

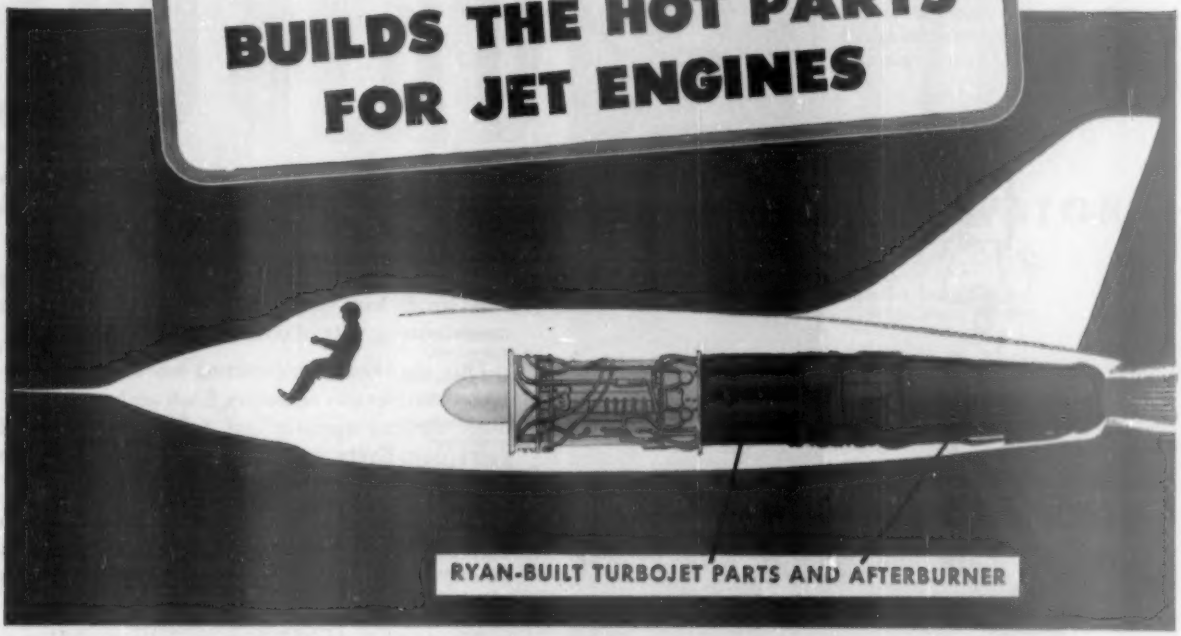
Obviously the full box score of ups and downs won't be visible until the big flood of reports comes in a few weeks from now. But even now it's possible to dig up some pretty solid ideas of what's coming.

You can get this partial preview because a good many companies have fiscal years that are out of step with the calendar. Some of these nonconformists have already made their first-quarter reports—for periods that ended Jan. 31 or Feb. 28.

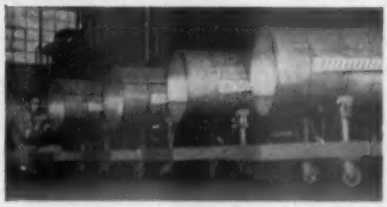
Right now, plenty of Wall Street bulls are arguing that corporate earnings for the regular quarter will shape up much better than would be indicated by the mounting unemployment and sagging production that have so far marked 1954. Their optimism finds little support, though, in the early-bird sampling (above) compiled by BUSINESS WEEK. The sampling seems to herald sharp, and widely scattered, drops from the year-ago figures, despite all the talk of savings due to the end of overtime, close figuring of operating costs, and the cushion hoped for in end of the excess profits tax.

However, it would appear that the nation's largest corporations have been faring better than the smaller units.

RYAN
BUILDS THE HOT PARTS FOR JET ENGINES



The startling performance of America's great new fighters and bombers depends largely upon the knowledge and skill of the manufacturer of their jet engine components. These rugged "hot parts" must be built to jewel-like precision and exhibit amazing strength under extremely high temperatures.



Ryan Afterburners for Westinghouse J-46

Ryan is a pioneer in this field, developing the first American jet engine afterburner in connection with the Navy's first jet plane, also built by Ryan. Today, Ryan leads in the fabrication of sheet metal turbojet components and afterburners because of a unique combination of advantages: long experience in high temperature metallurgy – extensive know-how in forming, welding and machining heat-resistant alloys – the industry's most modern array of high precision machines. Few plants anywhere have the necessary equipment, methods and know-how for this specialized work.

With these facilities, Ryan is building afterburners and jet engine parts for General Electric, Westinghouse, Pratt and Whitney Aircraft, Wright Aeronautical and others. Ryan's $4 million worth of modern production tools produce high temperature jet engine components used in North American F-86 and F-100 Sabres, Boeing B-47 and B-52 Jet bombers, Convair F-102 fighters, Douglas F4D Skyray fighters and A3D attack bombers and McDonnell F-101 fighters. Currently, Ryan is building six different types of afterburners.

As the only maker of jet engine parts which also designs, builds and flies jet aircraft, Ryan is uniquely qualified for this exacting work. In virtually *every* field of aircraft development and production, Ryan is better prepared to solve the complex engineering and fabrication problems posed by the high speed air age.

RYAN

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★ INGENIOUS
★ VERSATILE

Advanced-type Aircraft and Components
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—with completely automatic elevatoring, the riders tell the elevators what to do. All calls are registered and analyzed continuously. Cars are operated as a coordinated group to match service with demand at any time of the day or night.



—with completely automatic elevatoring, the passengers simply step into the car and press the buttons for the floors they want. That's all they have to do. Everything else, including door operation, is completely automatic.



TRIBUTE

. . . COAST-TO-COAST

More than 175 busy buildings in the United States and Canada have given AUTOTRONIC® elevatoring an overwhelming vote of confidence — *by buying it!*

Otis AUTOTRONIC elevatoring has ended all concern about elevator operators. Each car has an "automatic elevator operator" on duty every minute of every day. Every "operator" is fully trained, with electronic reflexes that never tire or slow down.

Every "automatic operator" saves up to $7,000 a car each year in office buildings; up to $14,000 in hotels; and equally substantial amounts in hospitals and department stores.

Who has bought it? Where can it be seen? Here is a partial listing of some of the larger AUTOTRONIC installations. Ask any of our 289 offices in the United States and Canada for the details. Otis Elevator Company, 260 11th Avenue, New York 1, N. Y.

Anchorage, Alaska
Eimendorf Hospital
Asheville, North Carolina
Memorial Mission Hospital
Boston, Massachusetts
Lemuel Shattuck Hospital
New England Mutual Life Insurance Company
Chicago, Illinois
Chicago Federal Savings and Loan Association
Prudential Insurance Company of America
Railway Exchange Building
Cincinnati, Ohio
Cincinnati Gas and Electric Company
Terrace Plaza Hotel
Traction Building
U. S. Veterans Administration Hospital

—*a touch of independence*

Signaling for an elevator is no longer a push-the-button-and-wait routine. It is an intriguing experience with the dramatic Otis electronic *touch* button. Nothing moves. A mere *touch* of a finger lights the directional arrow to show that the call has been registered and that an elevator is only seconds away.

For riders, *this touch of independence* dramatizes complete freedom of elevator operation. A car arrives almost instantly. The doors open. The rider enters the car. The doors close. And the car speeds on its way. All, automatically — without an operator!

For building management, *this touch of independence* dramatizes uninterrupted elevator service; a substantial saving in operating costs for each elevator each year; and the increased prestige that faster, friendlier and completely automatic elevatoring brings to a building.

Otis

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ACCEPTANCE OF OTIS OPERATORLESS ELEVATORS

Cleveland, Ohio
- Citizens Building
- Union Commerce Building

Columbus, Ohio
- Huntington National Bank Building

Dallas, Texas
- Atlantic Refining Building
- Burt Building
- Main & Akard Building
- Republic National Bank Building
- Southwestern Bell Telephone Company
- Statler Hotel
- U. S. Veterans Administration Hospital

Denver, Colorado
- Central Bank Building
- Denver Club Building
- Midland Savings Building
- National Farmers Union Life Insurance Company

Detroit, Michigan
- City and County Building
- Macabee's Building

Erie, Pennsylvania
- Baldwin Building

Evanston, Illinois
- Washington Life Insurance Company

Findlay, Ohio
- Ohio Oil Company

Hartford, Connecticut
- Aetna Life Insurance Company

Houston, Texas
- Houston Club Building
- Southwestern Bell Telephone Company

Indianapolis, Indiana
- Indiana National Bank

Jacksonville, Florida
- Prudential Insurance Company of America

Los Angeles, California
- National Auto Casualty Insurance Building
- Police Facilities Building
- Southern California Gas Company
- University of California Medical Center
- Western Pacific Building

Mare Island, California
- U. S. Navy Electronics Building

Miami, Florida
- Ainsley Building

Milwaukee, Wisconsin
- Wisconsin Telephone Company

Minneapolis, Minnesota
- Mayo Memorial Medical Center

Monterey, California
- U. S. Navy Post Graduate School

Montgomery, Alabama
- State Office Building

Nashville, Tennessee
- General Shoe Corporation

Newark, New Jersey
- Prudential Insurance Company of America

New York, New York
- Carnegie Endowment for International Peace
- Federation of Jewish Philanthropies
- Reiss Manufacturing Company
- Seamen's Bank for Savings
- Singer Sewing Machine Company
- State Insurance Fund Building
- Webb and Knapp Building

Oklahoma City, Oklahoma
- Hales Building

Peoria, Illinois
- First National Bank Building

Philadelphia, Pennsylvania
- Federal Reserve Bank
- Finance Building
- #3 Penn Center
- Rittenhouse Claridge
- Rittenhouse Savoy

Portland, Oregon
- Pacific Telephone and Telegraph Company
- University of Oregon Teaching Hospital

Reading, Pennsylvania
- Hotel Abraham Lincoln

St. Paul, Minnesota
- Minnesota Mining Company

San Francisco, California
- California Commercial Union
- Federal Reserve Bank
- Kohl Building
- Pacific Gas and Electric Company
- Shreve Building
- Union Carbide and Carbon Building
- University of California Teaching Hospital

Seattle, Washington
- Fourth & Pike Building

Washington, D. C.
- Acacia Mutual Insurance Company
- Providence Hospital
- U. S. Department of Justice
- U. S. Department of the Interior
- Willard Hotel

• • •

Calgary, Alberta
- Bank of Toronto
- Calgary General Hospital
- New Pacific Petroleum Building

Hamilton, Ontario
- Canadian Bank of Commerce

Montreal, Quebec
- Canadian Pacific Railway
- Imperial Tobacco Company, Ltd.
- Montreal Trust Company
- Royal Victoria Hospital
- 1980 Sherbrooke Corporation

St. Boniface, Manitoba
- St. Boniface Hospital

Toronto, Ontario
- Adelbay Corporation Building
- Confederation Life Insurance Company
- Continental Casualty Company
- Hydro-Electric Power Commission
- Independent Order of Foresters
- North American Life Building
- Physicians' Services Building
- Richmond Building
- York-Richmond Building

Vancouver, British Columbia
- Alaska Pine Building

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How long are nine lives?

The amazing ability of cats to survive what might be called "punishing service conditions" has given rise to the 9-life theory. How long a period this is nobody really knows. That's the way it is with R. D. Wood hydraulic presses . . . their life seems limitless, too. Some of them are scarcely beginning to draw their second wind after 25 years in service. Others are still going strong at 50. What every owner knows for certain about his R. D. Wood presses is that they have no trouble outliving the time needed to earn the original investment . . . and then some. An informative catalog is available.

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Plenty of Low Cost Electric

POWER

Turns the wheels of INDUSTRY in IOWA



THE PACE OF INDUSTRY in Iowa is accelerated by plenty of low-cost electric power. A huge power network, called the Iowa "grid" which inter-connects many of the state's generating plants stands behind this assurance. No industrialist need fear a power shortage in "the land of the gold that grows" where farsighted power systems always have a surplus of electrical energy, even over peak consumption periods. In addition, Iowa offers a skilled labor supply, excellent transportation facilities and a friendly state government. Learn more about Iowa as the ideal location for your new plant . . . write for your copy of "Industry's Road to Opportunity." 446 Central National Building, Des Moines 9, Iowa.

IOWA DEVELOPMENT COMMISSION

Homeless Money

. . . seeks haven in savings accounts, as standard short-term investments offer too meager yields.

Idle money is on the prowl again.

Corporate dollars—out of work because of shrinking inventory needs—are sniffing out a lair where they can earn some interest without losing liquidity.

Investors' dollars—idled by the Wall Street belief that stock and bond prices are too high—are hunting the same safe haven.

The net result is that banks, notably in New York and New England, are bagging some notably big depositors in their aggressive drives to expand their savings departments.

Mostly, the new customers walk in and plop down $7,500, $10,000, $15,000, $20,000—whatever is the top amount on which the bank will pay its best rate of interest. The depositors think it's fine to be able to draw down somewhere between 2% and 2¼% a year on spare money that, generally, they can take back whenever they want to without notice.

• **Reaction**—Not all banks regard the bonanza of new money with unmitigated delight. Many in New England take a sour view of this bird-of-passage money that stays only long enough to haul in some interest. Some of the largest savings banks in New York feel the same way. They say they have trouble enough investing the normal "flood" of savings, without having an additional freshet of the stuff.

Other New York banks, though, think that the nice new money is just dandy. An official of one of them puts it this way: "We've found that this roving money isn't as transient as many believe. A lot of it stays, and when it does, we've gained a permanent new account."

• **Flood**—No matter how the banks feel, the money keeps pounding on their doors. Much of it is fleeing from the low interest rates now offered by what in happier times would be the standard short-term investments. Thus many corporations normally keep their idle cash in Treasury bills. But the bills today are yielding about 1%, compared with 2¼% a year ago.

Commercial paper isn't much more promising. One large finance company is offering yields that range from 1⅛% on 90-day notes to 1¾% on nine-month maturities. The yield on 90-day bankers' acceptances is around 1¼%.

• **No Limit**—As a generality, it's the

smaller companies that are squirreling their money in savings accounts. But a small company can have quite a substantial account. Banks usually set a limit on the size of savings accounts on which they will pay top interest. New England limits an individual to $7,500, a joint account to $15,000; in New York the figures are $10,000 and $20,000. But the ceiling leaks, for there is no way to limit the number of accounts that one company can set up. If you have $100,000 to deposit, it's no trick at all to spread it evenly among 10 banks.

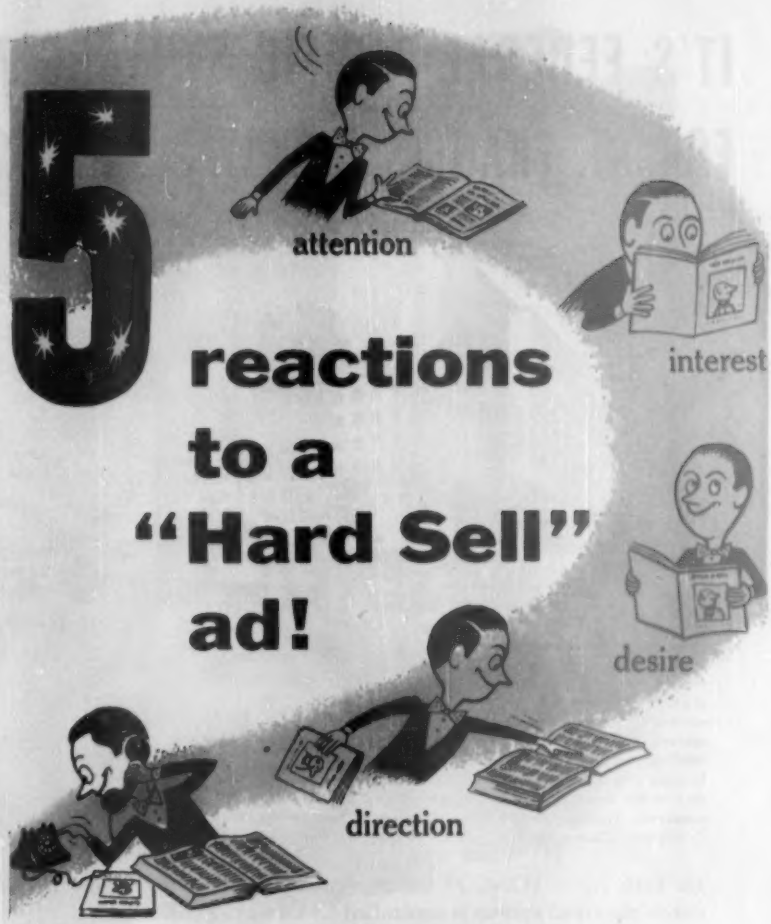
"We're not supposed to take commercial accounts," says a spokesman for a New York savings bank, "but the companies get in just the same. Suppose a depositor set up a joint account with his wife, and says the funds belong to an estate he is managing. Of course, we know that he is in business, but how can we prove that the deposit isn't really personal money? So we take the account."

The owner of a one-man business can beat the limit easily—if he has a large enough family. Take the case of a fairly typical New York commercial bank that pays 2% on the first $10,000, and 1% on the next $15,000. The businessman puts $10,000 in his own name, $10,000 in his wife's, $10,000 in a joint account, and $10,000 in trust accounts for each of his children. Every dollar earns the top 2%, up to the limit of his progeny.

Stockholders Ask Court To Block Hudson Deal

A block was thrown in the path of merger ambitions of Nash-Kelvinator Corp. and Hudson Motor Car Co. (BW—Jan.23'54,p31) this week when two disgruntled Hudson stockholders asked the Circuit Court of Wayne County (Mich.) for an injunction to halt the proceedings. Their complaint charged that proxy material issued by Hudson was "misleading and failed to give the stockholders complete information concerning the company's operations and financial position."

Hudson had already announced that dissenting shareholders (245,000 shares were voted against the merger, 1.4-million for merger, with 300,000 shares unvoted) could get $9.62½ per share. A New York attorney with over 2,000 shares promptly demanded $30 per share and appraisal of the stock. He was joined by a Detroit attorney with 4,000 shares. The merger terms permit Nash-Kelvinator to kill the deal if holders of more than 40,000 Hudson shares demand appraisal of Hudson's stock within 20 days of the annual meeting.



ACTION . . . getting prospects to dealers quickly. It's this action that makes sales for you . . . for your dealers.

To *get* action, you've got to tell people *when* they are in a buying frame of mind *where* they can buy your brand. And here's the way to tell them:

Use Trade Mark Service in telephone directories. Your trade-mark or brand name is displayed over a list of your local dealers in the 'yellow pages'. Available in over 40,000,000 directories across the nation or in selected markets.



Simple? Certainly . . . and it works! Surveys prove it does! Make it work for *you!*

AMERICA'S BUYING GUIDE FOR OVER 60 YEARS

For information call the Classified Directory Representative at your local telephone business office or see the latest edition of Standard Rate and Data (Consumer Edition).

IT'S FEDERAL-PACIFIC SWITCHGEAR FOR ST. FRANCIS HOSPITAL, TRENTON



Metal-clad switchgear installation at the St. Francis Hospital which includes automatic transfer of two separate incoming power sources with feeder breakers feeding unit substations connected in a looping arrangement for low voltage distribution to the hospital areas. Contractor, Peifer Electric Company, Trenton; Architects and Engineers, Schmidt Garden & Erikson, Chicago; Builder, Belli Company, Trenton.

IN THE NEW WING of the St. Francis Hospital, Trenton, N. J., the entire electrical system is controlled by Federal-Pacific equipment. The installation includes a Federal-Pacific 5 kv metal-clad switchgear installation employing Federal-Pacific magnetic air break circuit breakers, unit substations, and necessary lighting and distribution panelboards.

Engineering that sets new standards

Federal-Pacific's remarkable growth as a manufacturer of a *complete* line of electric light and power control equipment is primarily the result of advanced engineering and design. In the last few years, they have introduced new devices and radical improvements that have set completely new standards for the industry . . . brought important economies and far greater service efficiency for the user.

Manufacturing plants from coast to coast

The huge and fast-growing demand for Federal-Pacific electrical control equipment has been met by a constant increase in manufacturing facilities. Today eleven strategically-located plants help assure prompt deliveries the country over.

FEDERAL ELECTRIC PRODUCTS COMPANY

Main Office: 50 PARIS STREET, NEWARK 5, N. J.

FEDERAL & PACIFIC

ELECTRIC PRODUCTS COMPANY — ELECTRIC MANUFACTURING CORP.

Plants at Newark, N. J.; Long Island City, N. Y.; Hartford, Conn.; Cleveland, Ohio; St. Louis, Mo.; Dallas County, Texas; Scranton, Pa.; Los Angeles, Calif.; San Francisco, Calif.; Santa Clara, Calif. Affiliated plant, Toronto, Canada

FINANCE BRIEFS

A mutual trust for New York State commercial banks was established last week when Gov. Dewey signed a bill creating the Mutual Trust Investment Co. Through this company smaller banks, which heretofore had been unable to set up a full-time trust investment program, will be able to invest single funds up to $100,000 held under trust agreements. The new trust is designed to provide greater investment diversification and more efficient management of funds for more than 200 banks with trust powers.

•

Initial auction sales at the New York Mortgagee Exchange (BW—Mar.27'54, p72) drew more than 500 persons. Mortgages with a face value of about $1-million were sold for about $820,000; the bulk of the discounts were accounted for by the 28 second mortgages among the total of 69.

•

Owens-Illinois Glass Co. will borrow $40-million on 3¼% 30-year notes from an insurance company and a group of pension fund trustees. The notes will be retired at the rate of $1-million a year for the first 10 years, and $2-million a year after that; $30-million of the proceeds will be used to refund outstanding bank loans, the rest for working capital.

•

Commonwealth Edison Co. will soon refund the $40-million of 3⅞% first mortgage bonds it floated last July—at a cost of 3.625%—to take advantage of today's lower interest rates. The bonds will be redeemed at 102.90% of par through proceeds of a new $50-million issue scheduled for public sale soon.

•

One new share of common for every four shares held is the deal at International Business Machines Corp., if stockholders approve the plan at the Apr. 27 meeting. Following the distribution, the directors plan to declare a dividend of $1 per share. In 1953, the company paid $4 in dividends plus a 2½% stock dividend for the year. The stock sold for $247 at yearend, climbed to $324 on Apr. 2.

•

Last week the U.S. Supreme Court threw out ICC's plan to merge Florida East Coast Ry. with Atlantic Coast Line RR. An immediate result was that Florida East Coast 5s of 1974, with a face value of $1,000, rose from $950 to $985. Bondholders had contended that the plan didn't give them enough: It called for the Coast Line to take over the road by exchanging $46.5-million in securities and cash for $45-million of 5s.



"You see POWELL VALVES everywhere!"

And no wonder! For The William Powell Company makes more kinds of valves and has probably solved more valve problems than any other organization in the world.

Wherever flow requires dependable control, there's the place for Powell Valves—famous for dependability since 1846. Made ⅛" to 30" and 125 pounds to 2500 pounds W. S. P. Bronze, iron, steel and corrosion resistant alloys. Available through distributors in principal cities. On problems, write direct to The Wm. Powell Company, Cincinnati 22, Ohio.

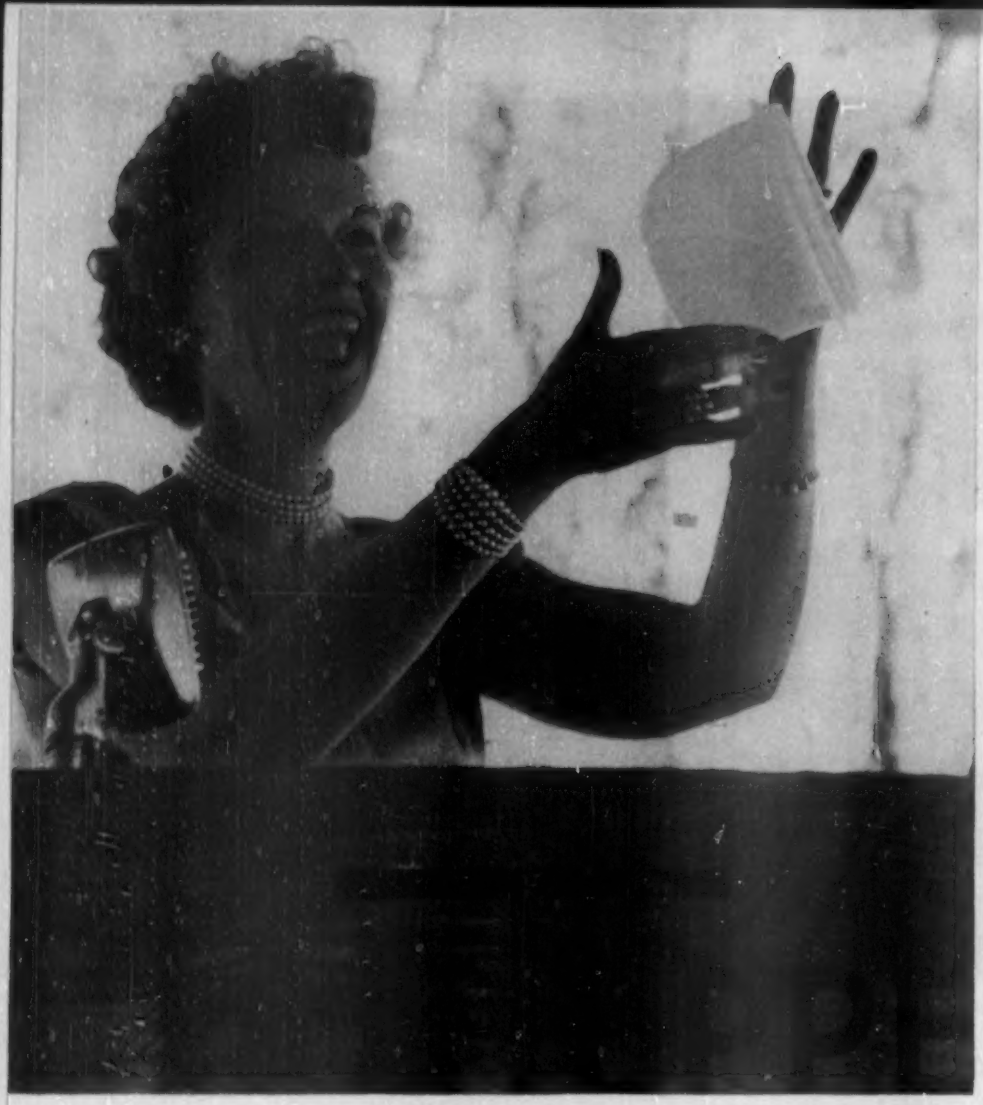
CONTROLS FOR THE LIFE LINES OF INDUSTRY



Powell Valves

108th year

How



←Brownie Wise, Tupperware chief, plays hostess to 650 men and women who sell plastic housewares. Big moment at rally (left): Brownie asks, "How would you like to sell a bowl like this?"



How does it look? She sports a bonnet—an inverted Tupperware bowl.



Rewarding the prize winners: She hugs Edith O'Reilly, who,

Brownie Wise Whoops Up Sales

(Story continues on page 56)



Baptizing Poly Pond: Brownie hurls a Tupperware container full of polyethylene into pond on 1,000-acre Tupperware grounds. Anyone who dips a finger in Poly Pond will have good luck, she has decided.



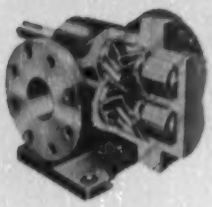


with her husband Jack (next left), won a Cadillac for selling Tupperware.



DEDICATING Court of Palms to distributors who "kept their eye on a distant star."

This is a better pump...

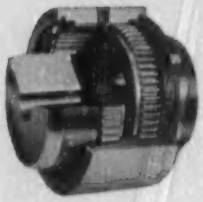


New Sier-Bath "Hydrex" PUMPS

• Simplest gear pump for continuous heavy duty

Write for literature on "Hydrex" Pumps . . . also Screw Pumps and "Gearex" Pumps

and this a better coupling...



Revolutionary Sier-Bath Flexible GEAR COUPLINGS

• Strongest, simplest, most compact gear coupling made

Write for 16-page Coupling Catalog

through use of PRECISION gears



Sier-Bath PRECISION GEARS

Take higher loads, speeds . . . allow lighter, more compact designs . . . reduce noise, failures . . . lengthen service life. Used by manufacturers of machine tools, automotive products, printing presses, aircraft, many others. Improve *your* products with Sier-Bath *Precision* Gears!

Send for folder: "Gear Errors Are Costly!"

Sier-Bath

GEAR & PUMP CO., Inc.

9258 Hudson Blvd., North Bergen, N. J.

Founded 1905 Member A.G.M.A.



Come on, Fay! Brownie eggs on shovelers, digging for $19,000 worth of buried prizes.

Tupperware Ladies Dig

Normally, Kissimmee, Fla., near Orlando, is a reasonably quiet cow town. Last week, a lot of things happened there. Over 650 exuberant distributors and dealers—mostly women—of Tupperware Home Parties, Inc., laughed, cried, and boned their way through a five-day jubilee (pictures).

Brownie Wise (cover), vice-president and general manager, dedicated a new national headquarters building.

Some 600 women dug dementedly in an acre plot for buried prizes.

Ernest Fiene, artist, announced the establishment of the Tupperware Art Program.

Seven Tupperware distributors won two Cadillacs and five Fords.

Brownie Wise unveiled the Tupperware Rose silver pattern.

Some 220 women shut their eyes, rubbed their hands on a block of polyethylene, and wished—that they might sell more Tupperware.

• **Prophet in Plastic**—Bemused visitors on all sides murmured, "You'd have to see it to believe it." Tupperware Home Parties celebrated its third birthday in an affair that bound up in a single improbable package a sales training session, a circus, and a revival meeting.

Heart and soul of that package is Brownie Wise. Depending on whom you talk to, the charming, 40-year-old widow who pilots the sales company is one of three things:

To the skeptic, she's the greatest thing since Aimee Semple McPherson.

To the successful distributor, she's the best woman merchandiser to hit the scene since Dorothy Shaver, president of Lord & Taylor.

To the true believer—and that includes her staff and dealership—she's the most wonderful person in the world.

• **Off-Beat Tactics**—Her basic merchandising philosophy sounds simple. "If we build the people," she says, "they'll build the business." That philosophy takes her down paths that more conventional merchandisers would shudder at.

In 1951, the company, which sells polyethylene housewares—dishes, storage bowls, cannisters, and the like—had some 200 dealers. Today it has roughly 9,000, of whom 95% are women. It had three or four distributors. Today it has 54. Retail sales estimates for 1954 run around $25-million, triple 1953's sales. By 1957, Brownie Wise expects to reach $100-million.

• **Birth of an Idea**—If you go back earlier in Tupperware's history, the record appears even more remarkable.

It was in 1945 that Earl Tupper, president of Tupper Corp., at Farnumsville, Mass., first tried to sell his new



Six hundred shovel-wielding women dig frantically for mink stoles, diamond rings, and other treasures. At last, Fay Maccalupo uncovers the top prize: a miniature car.

for Treasures

(Story starts on page 54)



There it is. God bless America. Exhausted, Fay has her hour. Two armed guards and a police dog stood watch all night over the buried mink stoles, diamond rings, other treasures.

STOP WASTING VALUABLE EXECUTIVE TIME...

let Cummins sign your checks

A Cummins Check Signer automatically signs your checks at a rate of up to 450 a minute—more than you can sign by hand in a whole tedious hour . . . and signs with your best signature every time . . . always neat and legible.

Stop wasting valuable time writing your name over and over again. It will pay you to do what thousands of businessmen are doing—turn the job over to a Cummins Check Signer. It performs the purely mechanical act of signing, leaves time for executive work only *you* can do, such as verifying correctness of invoices and amount of payments.

Send coupon, or phone Cummins Business Machines Division Offices in principal cities

IN BUSINESS AND BANKS SINCE 1887

Cummins

CUMMINS-CHICAGO CORP., Dept. BW-44
4740 N. Ravenswood Ave., Chicago 40, Ill.

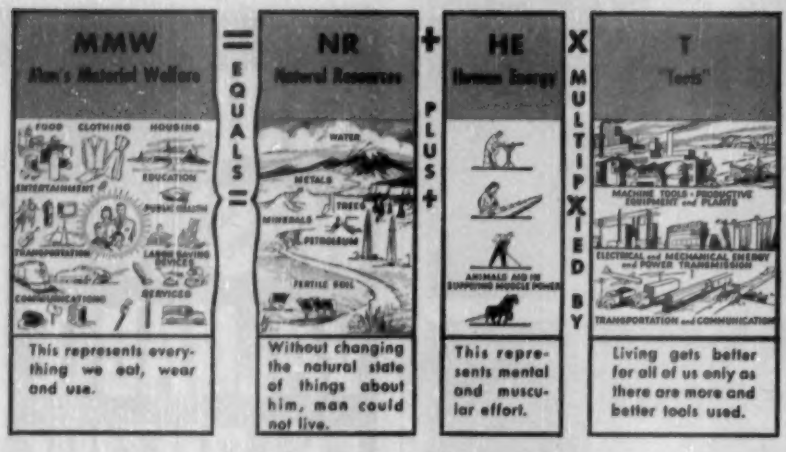
Please send full information on Cummins High-Speed
☐ Check Signers
☐ Endorsers

Name .....

Name of Business .....

Address of Business .....

City ..... State .....



The 300 Billion Dollar Question

The more than 300 billion dollar national income of the United States in 1953 gave a greater purchasing power to the people of this country than had ever before been known to man.

No Socialist or Communist has ever been able to truthfully answer "yes" to this *300 billion dollar question:*

"Can you name one case in all history where the tools have been operated as productively by the state as by private individuals, or where the employees have ever had as much goods as they enjoy under American capitalism?"

The United States' great and efficient use of tools stems from the two things no state ownership system offers: individual freedom and the right to private property. Our people enjoy the opportunity for education and the right to choose the kind of work they want to do, to buy or sell as they please, to save to own property or tools, to invest and make a profit and keep it. As a result we have had the incentive to invent, buy and use more tools to produce more goods for everyone than has any other nation.

* * *

One of the new and better methods being rapidly adopted by industry is production band machining.

The modern contour band machine is a basic machine tool of wide usefulness. It is similar in principle to an ordinary bandsaw, but there the similarity ends. Today's band machine employs 18 types of band tools for sawing, slicing, friction sawing, grinding, filing, polishing and carbide tool finishing. It will cut any shape in any material, removing an entire segment of the workpiece instead of reducing it to chips.

It has a power feed, tiltable table to which the work is locked and moved into the cutting tool. It cuts with precision accuracy. It is available with variable band tool speeds up to 15000 feet per minute. Coolant and compressed air systems are included. A wide range of attachments are available for mitering, cutting compound angles, slotting, cutting circles and other jobs.



New DoALL with power feed table automatically cutting special spacer bars.

Now, through ingenious use of simple fixtures, band machines are being increasingly used for production line work. Jet engine rotor blades are trimmed by friction sawing with a power driven rotary fixture. Bearings are split automatically. Fins are cut in castings, the machine indexing and completing an entire piece in one automatic operation.

Complete data is available from The DoALL Company or its 38 Service-Stores listed in classified phone directories. These stores carry machine tools, cutting tools, gages, tool steel and supplies.

DoALL

The DoALL Company
Des Plaines, Ill.

FREE: Wall chart: "Why Living Improves in America". Write or call DoALL—no obligation.

line. In the retail stores, Tupperware fell flat on its face.

Perhaps the bad name that plastics earned in the early days had something to do with it. More important, Tupperware needs to be demonstrated. It has a trick, patented seal, and it takes a bit of doing to learn how to "burp" the seal to let the air out. Even store demonstrations didn't work.

Brownie Wise first broke into Tupperware with experience of home-party selling she had learned while working for Stanley Home Products. Like most Tupperware dealers, she started out on a part-time basis. By 1950, she had worked her way up to a distributorship, and to a conviction that the home party was the way to sell Tupperware. In April 1951 she sold this idea to Tupper, and Tupperware Home Parties was born. Tupper pulled his product out of retail stores, told Brownie to go to it. Nominally, he is president of the sales company; actually Brownie Wise has just about carte blanche to run the organization.

1. They Build the Business

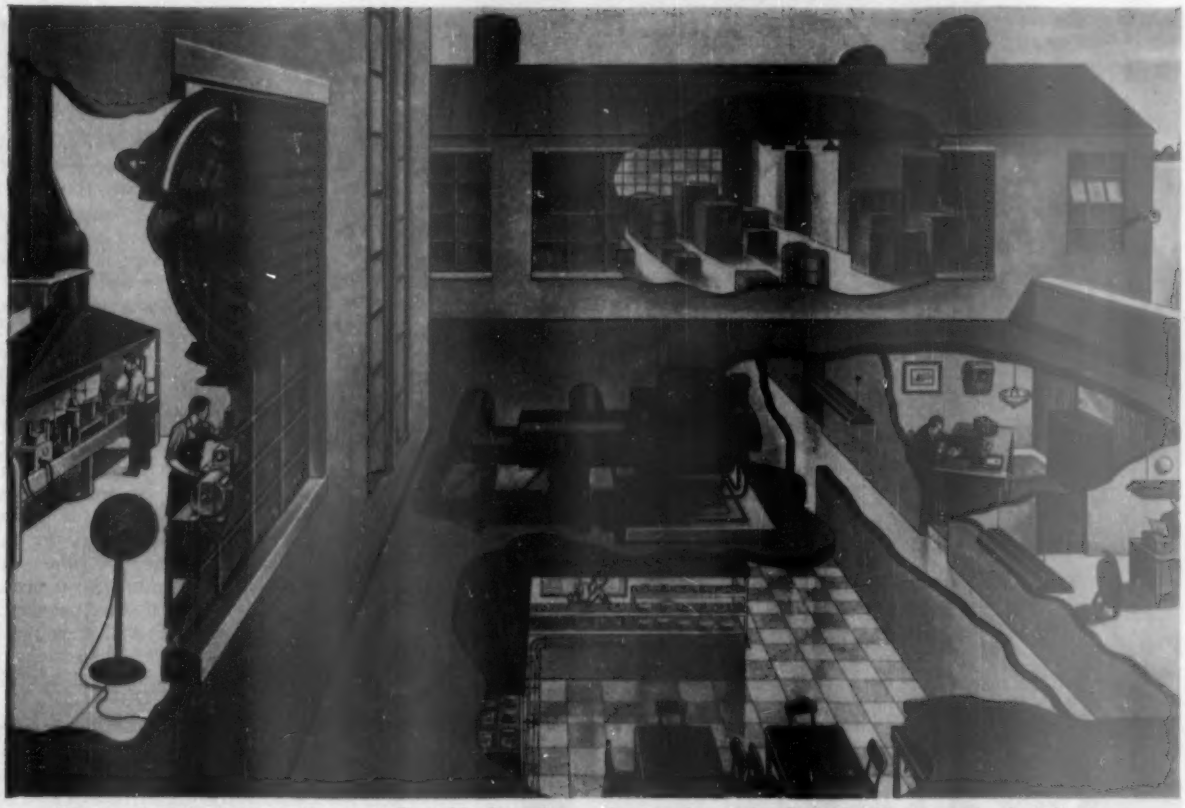
It's basic Tupperware policy that everyone starts at the bottom, as a dealer. "This has slowed our growth," says Brownie, "but we think it makes a sounder organization."

Being a dealer means that you persuade people to act as hostesses at a party at which you, the dealer, demonstrate and take orders for Tupperware—and get as your gross take 35% of the sales. At that party, the dealer looks hopefully for other hostesses to put on more parties. Often the hostess herself winds up as a dealer.

Once a dealer has recruited four other dealers, she becomes a unit manager. That means she is entitled to another small overriding discount on the price she and the dealers under her pay. As she brings more dealers under her wing, she may become a branch manager—and eventually a full-fledged, franchised distributor, who gets a bigger discount, but has the added expense of warehousing the goods. In every step, she is on her own. The distributor buys from Tupperware, as Tupperware buys from Tupper; dealers buy from the distributor.

Any contacts—the milkman, the beauty parlor operator, the landlady—are potential dealer fodder to a recruiting dealer. Brownie Wise cites one case from her own experience in new territory. "I stopped at the same gasoline station several times, with my station wagon loaded with Tupperware. The station man got curious, asked me about it. It wound up with his wife putting on a party."

• **Party Payoff**—Incentives by the barrel load back up this program. A hostess



WHAT ARE YOUR VENTILATING NEEDS? Portable fans for spot cooling? Circulator and window fans for offices? Self-cooled propeller fans and universal blowers for large-volume circulation? Whatever the installation, there's a Graybar-distributed unit made-to-order for the job . . . and available from nearby Graybar.

Pull extra profits out of the air

FREE ILG Industrial Ventilation Guide

Send for your copy of this fact-filled manual today. It's packed with "How to" instructions for planning ventilating systems, curing the ills of present set ups, figuring air change requirements—plus dozens of "right-way vs. wrong-way" illustrations.



The Graybar-distributed ILG fans and blowers described are among the best-designed and best-built units you can get.

Extra profits through increased production and lowered costs go hand in hand with Graybar-planned ILG ventilating systems. Adequate ventilating equipment that removes fumes, dust, heat, and stuffy air means more efficiency in every department. Just check these points and see what a *big* job fresh air can do:

1. Increases man-hour production
2. Reduces material spoilage
3. Cuts worker fatigue
4. Reduces accidents
5. Lowers labor turnover

Why not consider a free survey of *your* plant? You can count on your local Graybar Representative for sound recommendations aimed directly at lowering your plant operating costs.

Ventilation, of course, is only one facet of Graybar's service to industry. As an all-inclusive source for *everything electrical*, we distribute over 100,000 quality items for wiring, lighting, communication, and power distribution.

433-24

CALL GRAYBAR FIRST FOR...

GraybaR Everything Electrical

IN OVER 110 PRINCIPAL CITIES

GraybaR **ELECTRIC CO., INC.**
420 Lexington Ave., New York 17, N. Y.

Pole to Pole or 'round the world!



AIR Parcel Post
flies with the Air Mail

BRINGS CUSTOMERS CLOSER! International Air Parcel Post cuts days, weeks from overseas shipping time. Speeds up payments!

SAVES MONEY! One pound packages go to Germany for only $2.30 — from any Post Office in the U. S. A.!

NO RED TAPE! Requires just two simple shipping labels.

International Air Parcel Post gets priority handling all the way!

For more information and rates call your Post Office.

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and Air Mail



Advertisement by the Scheduled Airlines as a public service for the U.S. Post Office

gets a premium for putting on a party. The home office in Orlando works indefatigably at putting on contests for dealers and distributors. There are prizes for recruiting the most dealers, prizes for selling $1,000 worth of Tupperware a month—or even a week. The year ends in an orgy of prize giving. Besides the Cadillacs and Fords that went to top distributors last week, managers and dealers carried off mink stoles, TV sets, a home freezer, diamond rings, silver tea services, and a Ford.

The average part-time dealer, says Jack Marshall, Tupperware general sales manager, gives three or four parties a week, into which she puts about 25 hours time. Average sale is $56 per party (Tupperware retail prices range from around 39¢ to $4.98). After paying incidental expenses, the dealer nets around 25% to 28%—or around $14 a party. Top dealers do much better. A few net $150 to $170 a week. Managers' net can go as high as $15,000 to $17,000 a year. A few crack distributors write their net in six figures.

• **Husbands Horn In**—At the start, it's usually a woman's business. As the housewife works her way up, though, her husband gets interested. Nearly all the distributors are husband-and-wife teams.

The case of Jack and Edith O'Reilly is a good example. Edith O'Reilly started as a dealer in the Bronx, N. Y., late in 1951. By May 1953 the business was big enough to call for a distributorship. Her husband quit his 24-year job at National City Bank, joined up with his wife as a Tupperware distributor. Today, their gross sales are running $25,000 a week.

• **Contagious**—Brownie Wise believes the strength of home-party selling is that you have a captive audience, and an expectant one. The mass contagion it can generate is a powerful sales promoter. Because the dealer has her customers for an hour or two, she can use —must use, by Tupperware standards— low-pressure tactics. "One of our hardest jobs is untraining high-pressure door-to-door salesmen," says Brownie.

To work, a home party must offer a product that will stand up. It must have an exclusive product—retail store competition might kill reorders. It should have a demonstrable product. Finally, the product must have widespread use to fit all income brackets.

The Tupperware staff has no qualms about the future. So far, it has tapped only 50% of the market. Initial orders are small—maybe $4 or $5—and, says Marshall, the normal household can use $75 worth of Tupperware. Tupper Corp. brings out an average of one new product a month to keep customers coming. And the patented seal is a safety valve against competition. Now that Tupper has just taken over a new plant at Blackstone, production will no longer be a stumbling block.

II. We Build the People

The buildup of dealers, managers, and distributors is the big job of the home office. In activating this part of the program, Brownie Wise pulls out all the stops. Her tools are a blend of hard work, sound psychology, and Tupperware's special brand of corn.

• **Training Champs**—As in any good sales organization, backbone of the buildup is sales training. A good deal of this takes place in the field. But the headquarters staff puts on six or seven seminars a year. When all the carnival and psalm singing were over last week, the men and women settled down to a grueling three-day session. Classes started at 8:30 a.m., ran till 9 p.m. Then the students went back to their hotels with two hours of homework. "We don't fool about these courses," says Brownie. They include everything from a Dale Carnegie course in public speaking to brass-tacks discussions of how to display premiums to lure the hostess.

There's a reason for this stiff training. Tupperware dealers are not, after all, professional sales people. They need all the help they can get. That's one reason Tupperware will begin to advertise soon.

But the Tupperware buildup goes far beyond any routine sales training.

• **Playing Safe**—Some aspects of it may startle spectators. It works because it is rooted in definite human needs—the need, most of all, to feel they belong to a big important organization.

Take Poly. That's the block of polyethylene that normally sits on Brownie's desk (cover picture). It was the first polyethylene Tupper ever saw. Brownie spied it, leaped at it as "a wonderful sales gismo." Now Poly, insured for $50,000, travels with her to dealer and distributor rallies all over the country. "I tell them to shut their eyes, rub their hands on Poly, wish, and work like the devil," says Brownie. "Then they're bound to succeed."

Poly Pond, a small lake on the headquarters grounds, is equally potent. Last week, Brownie christened Poly Pond with a stiff dose of polyethylene. Now, whoever dips her hands in Poly Pond will have kissed the Tupperware Blarney stone. (There's an alligator in the pond, though, comments Jack McCall, staff sales counselor, for the dealers who don't work.)

This kind of fooling catches the women's fancy, makes them feel pretty special. So does the Tupperware rose, which horticulturists right now are developing. The Tupperware Rose silver pattern, by International Silver Co., serves the same way—and makes a

NEW INTERNATIONAL COE
—most advanced in industry

New INTERNATIONAL R-405 SERIES COE ROADLINER® models are the modern way to make greater profits from the longest, toughest hauls. *Simplified design provides more payload space* within the overall length in any state.

Exclusive INTERNATIONAL *accessibility features* plus INTERNATIONAL "Tough-job" engineering reduce maintenance cost.

Comfort and safety features help drivers maintain schedules. Famous Comfo-Vision cab is designed by drivers for drivers. Driver's eye level is nine feet above the road. He commands a view over other traffic, hill crests.

And every INTERNATIONAL COE ROADLINER *has a record behind it unequalled by any other truck.* America's most cost-conscious truck operators have made INTERNATIONAL the heavy-duty leader for 21 straight years because of long life, lowest operating costs from all-truck power, and unequalled performance.

Ask your INTERNATIONAL Dealer or Branch how an INTERNATIONAL COE ROADLINER can make greater profits for *your* operation. Haul the modern way—with an INTERNATIONAL COE, the most advanced hauling unit in the transportation industry. Time payments arranged.

INTERNATIONAL HARVESTER COMPANY • CHICAGO



New INTERNATIONAL Model RDC-405 ROADLINER with Comfo-Vision cab, GCW rating 68,000 pounds.

More Payload Space With Lowest Maintenance Cost, Maximum Driver Efficiency

Three chassis models, GCW ratings 68,000 to 76,800 lbs. Four-wheel, or six-wheel types with proved INTERNATIONAL bogie or trailing axle.

RDFC-405 six-wheel ROADLINER permits more payload on truck (22 feet) and longer trailer (28 feet) in a 60-foot limit.

RDC-405 ROADLINER with sleeper cab permits use of a 35-foot trailer in a 45-foot limit.

RDFC-405 or RDTC-405 six-wheel ROADLINER with sleeper cab permits use of a 35-foot trailer in a 45-foot limit.

RDC-405 ROADLINER permits use of two 24-foot trailers in a 60-foot limit.

All-truck power. Choice of gasoline, LPG, or diesel fuel systems.

Maximum accessibility. Exclusive INTERNATIONAL swing-out fenders provide instant access to either side of the truck. Easily detached grille assembly quickly exposes engine for efficient service.

New driver comfort. Famous Comfo-Vision cab (regular or sleeper types) with new Sweepsight windshield, complete control of cab ventilation. New green-tinted non-glare safety glass optional. Exclusive INTERNATIONAL flat-floor floorboard keeps out heat and noise, lifts conveniently for service.

Unequalled Service Facilities. America's largest exclusive truck service organization offers immediate availability of parts and service. Dealers everywhere; company branches located in all leading cities.

International Harvester Builds McCORMICK® Farm Equipment and FARMALL® Tractors . . . Motor Trucks . . . Industrial Power . . . Refrigerators and Freezers

Better roads mean a better America

INTERNATIONAL® TRUCKS

"Standard of the Highway"

If *yours* is to be a *Superior* machine



It deserves the best variable speed drive . . . .



GET *Graham*

most reliable variable speed drive made

- **ULTIMATE in SIMPLICITY and COMPACTNESS** —a straight line extension of a standard induction motor — or available without motor.
- **UNLIMITED SPEED RANGE** — from any desired maximum speed to zero, including reverse, without stopping motor.
- **UNMATCHED ACCURACY** — of speed setting and re-setting and speed holding.
- **NO PERISHABLE PARTS** — such as belts or tubes, requiring periodic replacement.
- **PROVED PERFORMANCE** — Fifteen years satisfactory use as standard equipment.
- **LOW COST** — a better job for less money.

GRAHAM TRANSMISSIONS, INC.
Dept. BW • MENOMONEE FALLS, WISCONSIN

THE MILLER CO., *Meriden, Conn.*

HOW MUCH QUALITY DO YOUR *lighting dollars buy? You can compare fixture design and test data, but that's not enough. You must look behind it, to the maker. Behind Miller quality lighting equipment—Fluorescent, Incandescent, Mercury, for industry, commerce and schools—are 110 years experience—1,000 combined man years field lighting engineering —million-dollar production facilities.*

wonderful incentive for a hostess, who can only get more of it by giving another party. The silver is not for sale.

• **"Think High"**—Everything about the Tupperware program works toward that emotional pull. The entire $1-million plant at Kissimmee, dedicated so lovingly last week, aims at creating dealer pride in belonging to such an organization. Brownie Wise elected to settle in Florida because dealers will come to Florida, see for themselves the fine new building, the Garden of Palms, the lakes, the pavilion. Incidentally, tourists will see it, too. It's right on the Orange Blossom Trail.

Tupperware dealers are constantly exhorted to think high and follow a far star. "My grandmother used to tell me," Brownie Wise told her audience, "that we have to pay for our room on earth. I believe that business has to pay for its room on earth, too."

Tupperware's payment takes several shapes. One is the Museum of Dishes, a collection housed in the headquarters building. Another is the newly established Tupperware Art Program, headed by Ernest Fiene, which will distribute three prizes of $2,400 a year to artists.

• **Heaven on Earth**—Climax of the rally and seminar is the candlelight graduation ceremony. Here tearful managers receive their "diplomas" ("I never had a diploma before in my life," says one) that make them Certified Tupperware Managers. When Brownie Wise made a farewell inspirational address, called "Ad Astra," there wasn't a dry eye in the house. As a comfortable, matronly, highly successful distributor put it, "I don't know how it is, but Tupperware has become a religion with me."

While the women dance a double-shuffle and chant, "I've got that Tupperware feeling deep in my heart," Brownie Wise, viewing her handiwork says, "I don't need any hobbies. I have everything I want right here. I hope it never ends."



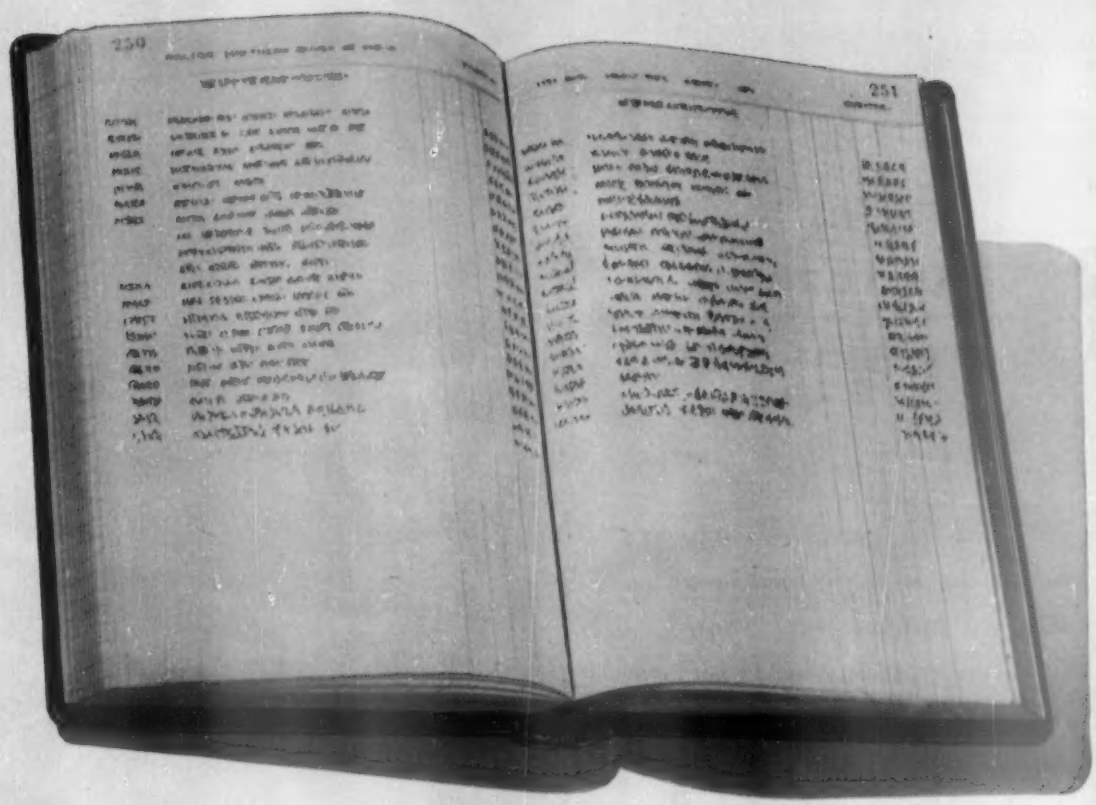
A Machine That Sells Automobiles

The man and the machine in this picture have a relationship that works to their mutual benefit. It's hard to say who is operating whom. The man is happily pushing buttons, turning dials, and watching lights flash on and off.

The machine, no doubt equally happy, is selling the man a car.

This intelligent device was developed by a Cleveland company—Ohio Displays—for use by auto dealers. The machine works this way: Set up in such public places as bowling alleys, railroad stations, and ball parks, it attracts the eye of a wandering citizen. He walks up to it and notes that it displays pictures of 20 cars. When he dials the appropriate number, the price of a particular car flashes on another section of the machine. By pressing various buttons, he finds out what the car will cost with items of optional equipment. If he decides he might like to buy the car, he fills out a registration slip that will bring a salesman calling.

Studebaker Corp. has shown great interest in this machine. A Studebaker dealer—Evans-Eger, Inc., of Cleveland—is now operating the only Price-C-Matic in existence, in a bowling alley. If Evans-Eger's experience proves the machine worthwhile, Studebaker will buy it in quantity.



Here's where Enduro Stainless Steel really shines

It shows up in the ledgers of successful manufacturers who use it. You get the story in sales figures. In profit figures.

Sometimes ENDURO's satin luster can give a lackluster product a sales lift. That can mean eye appeal. And easy cleaning.

It can mean buy-appeal when it's the brightwork on an automobile. Or a refrigerator. Or a range. Or an automatic vending machine.

Or it can mean strength and corrosion resistance. Or high strength-to-weight ratio under pressure. Or toughness when exposed to scorching heat or subzero cold, as it does in aircraft.

Whether the customer sees it, or the chemical and physical qualities are locked inside a component part, ENDURO Stainless Steel will eventually show up on the ledger. On the *black* side.

Republic will be glad to tell you how to fabricate it. Forge it. Machine it. Weld it. And anything else you may want to do with it. You see, we pioneered ENDURO Stainless Steel 30 years ago. And we're still discovering new uses for it. We may have one you can use. It doesn't cost anything to find out. And it might mean a lot to your business. Just write.

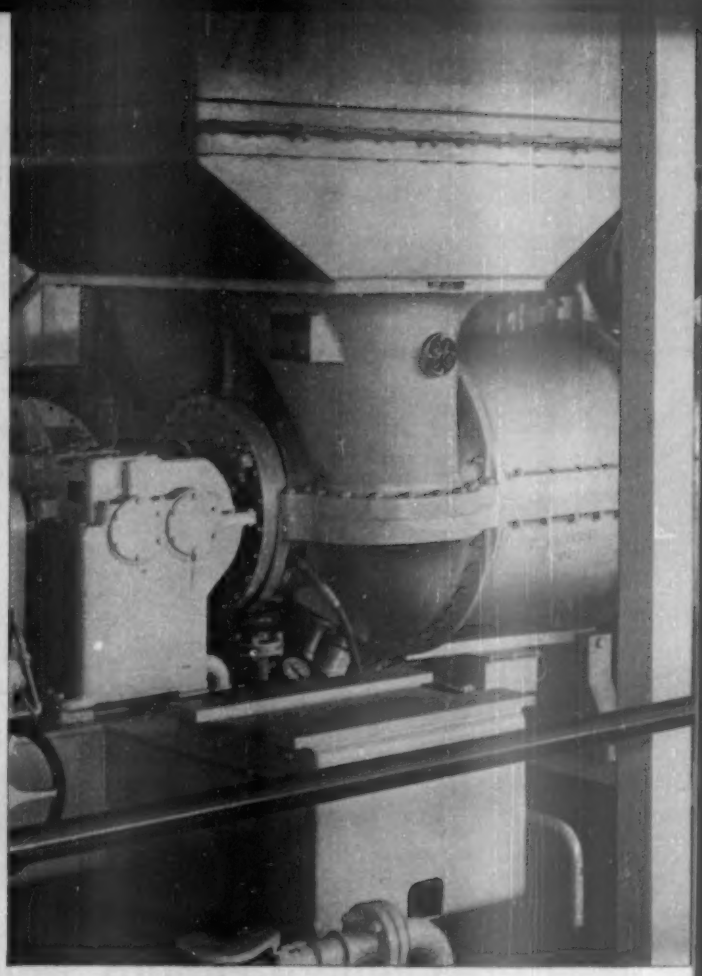
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Alloy Steel Division • Massillon, Ohio
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Export Department: Chrysler Building, New York 17, N. Y.

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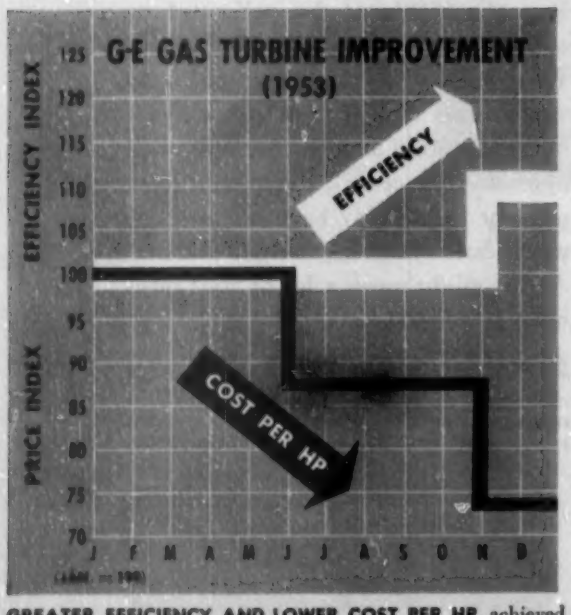
GAS TURBINE

progress report



In the past year, G-E engineers have reduced the cost per hp of the G-E gas turbine—and boosted its efficiency an average of 11 per cent. You may be able to put this versatile prime mover to work providing low-cost power for your plant.

Increased Efficiency, Versatility,

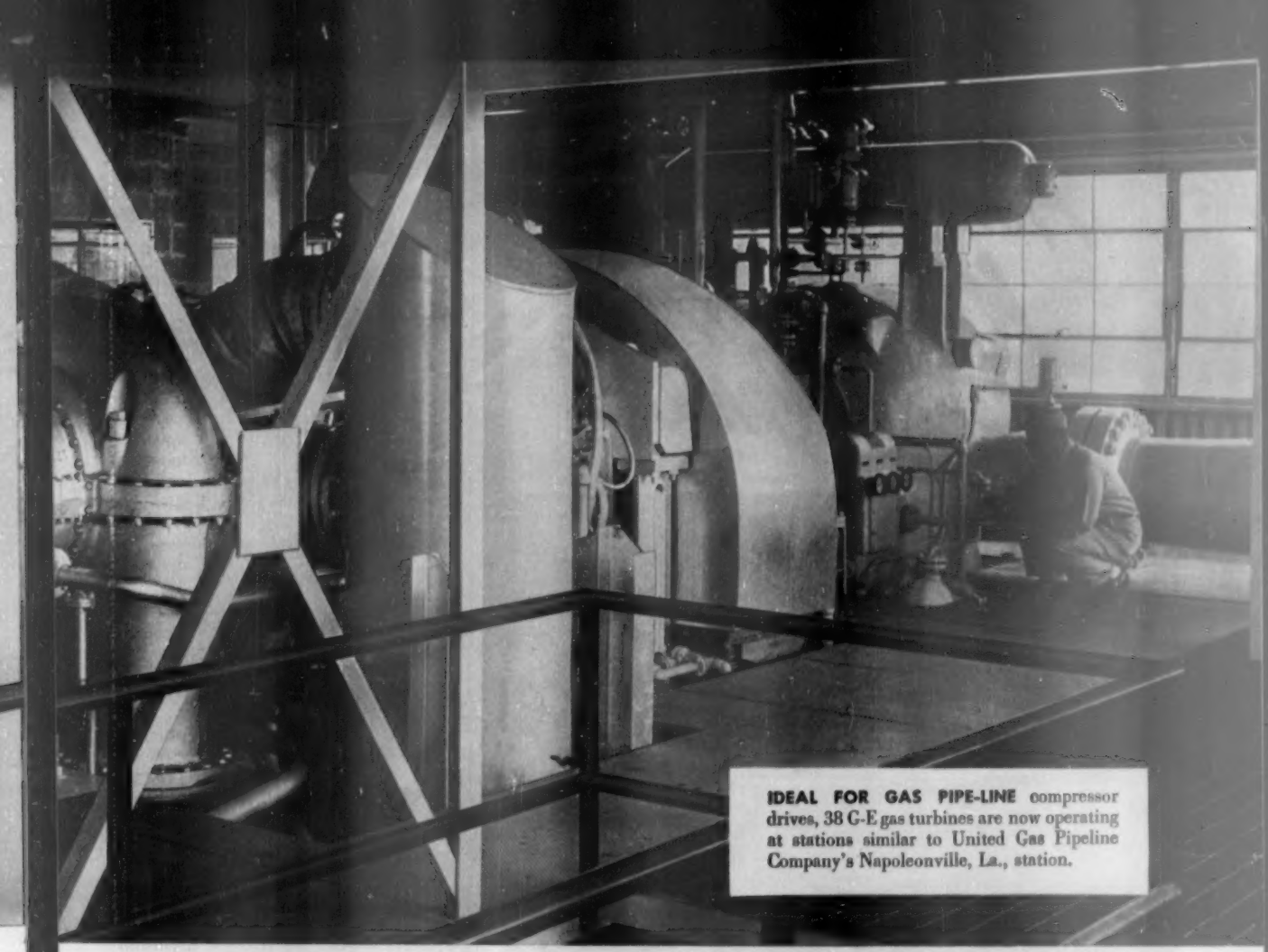


GREATER EFFICIENCY AND LOWER COST PER HP, achieved by improved design and manufacturing techniques, were significant G-E gas-turbine advances in 1953.

G-E GAS TURBINE OPERATING RECORD
(As of March 15, 1954)

TYPE OF SERVICE	NO. OF UNITS	OPERATING HOURS
LOCOMOTIVES	11	60,000
POWER GENERATION	16	70,000
GAS PIPE-LINE PUMPING	38	150,000
PETRO-CHEMICAL	1	3,000
TOTAL	66	283,000

UNEQUALED RECORD for operating hours and diversity of application, shows versatility and dependability of G-E gas turbine, gives G-E engineers vital data for future progress.



IDEAL FOR GAS PIPE-LINE compressor drives, 38 G-E gas turbines are now operating at stations similar to United Gas Pipeline Company's Napoleonville, La., station.

Lower Cost Per Horsepower Mark G-E Gas-turbine Progress

In less than five years, what was a completely new, un-tried prime mover has been shaped into a dependable, economical means of power. Already G-E turbines have racked up over 280,000 hours driving railroad locomotives, generating electric power, and turning high-speed compressors for gas pipe-line pumping and other industrial processes.

In the past year alone, G-E engineers have reduced the cost per horsepower for the gas turbines an average of 26 per cent. In the same short span, they have boosted efficiency an average of 11 per cent.

Outstanding among recent improvements is an integral base on which the turbine and its auxiliary equipment are permanently mounted and shipped—substantially reducing installation costs.

How could all this happen? General Electric, leader in the design and manufacture of both steam turbines and jet engines, was well equipped to develop the combustion gas turbine. Now, with thousands of hours of operating experience already accumulated, and with a factory designed exclusively for their manufacture, G.E. is leading the way in the gas turbine field.

If you would like more information on the gas turbine, contact your nearest G-E Apparatus Sales Office or write to General Electric Company, Section 255-10, Schenectady 5, New York.

You can put your confidence in—

GENERAL ELECTRIC

Have You a Knotty Problem?



Hydraulically activated rollers move lengthy loads sidewise—on or off forks, for faster handling, more efficient storage.

Handling and storing lumber has long been a problem at most yards . . . until TOWMOTOR developed this Roll-Off Accessory for handling lengthy materials like lumber, pipe and bar steel. Now you merely roll them on or off the forks, end-first, from the side.

Maybe your job is different, too. If so, there is almost certain to be a TOWMOTOR Standard or Special Attachment to do what you now think cannot be done. It is worth looking into, because TOWMOTOR moves more tons per dollar, which today can easily be the difference between a profit or a loss on many jobs. Ask for TOWMOTOR Roll-Off literature and our booklet, "How To Catch Man-Hour Thieves." TOWMOTOR CORPORATION, Div. 204, 1226 East 152nd Street, Cleveland 10, Ohio.

TOWMOTOR
THE ONE-MAN-GANG

FORK LIFT TRUCKS and TRACTORS
SINCE 1919

TOWMOTOR ENGINEERED FOR QUALITY PERFORMANCE

Travel on Credit

New Pan American plan sells trips on installment payments in effort to get more Americans in the air.

Despite the many factors that make postwar foreign travel easier—higher incomes, more liberal vacation allowances, time-saving air transport—the American people as a whole spend a smaller proportion of their income on travel abroad than they used to. In 1952 (last year for which figures are available), they spent only $4.48 of every $1,000 of disposable income on foreign travel—against $7.66 in 1929 and $6.09 in 1937.

That's true proportionately, even though the total of $1.1-billion spent for the purpose in 1952 topped the figure for any previous year. At the 1929 rate, that total would have been $1.8-billion.

• **Easier**—Executives of Pan American World Airways believe the reason for all this may be simply that foreign travel has always been too hard to buy; it's about the only major class of consumer expenditure for which you have to make full cash payment in advance. That's why Pan Am has decided to add travel to the list of things such as autos, or freezers, or TV sets, or a new roof, that you can pay for in installments (BW—Mar.27'54,p36).

Starting May 1, you will be able to go into any Pan Am ticket office—or any of the 1,500 travel agencies in the country accredited by Pan Am—buy a complete foreign trip including all travel, hotels, meals, etc., and arrange to pay for it in up to 20 monthly installments.

• **Paying**—As with other installment purchases, you have to make a down payment—in this case, a minimum of 10%—and you add on a surcharge to cover the cost of the money, of the credit check, of keeping the records, and so on. The surcharge, basically, is the fairly standard one of 1% of the unpaid balance multiplied by the number of months over which payment is spread. If that is 12 months (expected to be the usual choice) the surcharge would be 12%. The time-payment tariff that Pan Am has filed with the Civil Aeronautics Board contains a few minor variations in the formula.

Pan Am has spent a year working out the plan with officials of the Beneficial Loan system, which will handle most details. Here's how it will work in a typical case.

(1) Mr. and Mrs. Richard Roe go to their hometown travel agent, pick out a two-week all-expense tour to



Let adhesives like these speed your fastening jobs

Developing a new product? Pushing for faster production? If so, the right adhesive may be just the tool you need.

For example, the manufacturing operations shown here involve a wide variety of tricky bonding problems, all solved with Armstrong's Industrial Adhesives.

. . . A maker of radio speaker grilles has to bond a woven plastic fabric to plywood. Contact surfaces are very small but Armstrong's N-170 Adhesive does this hairline job with strength to spare.

. . . Paint rollers require an adhesive that resists the bond-breaking action of pressing and squeezing, as well as the attack of water and varied paint solvents. For this application, Armstrong's N-171 is the answer.

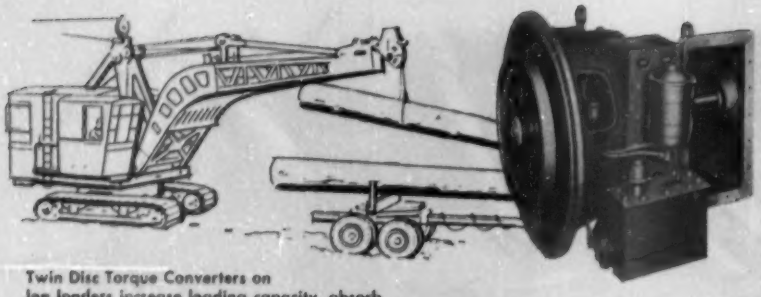
. . . Bonding vinyl—especially reverse-printed types—involves the risk of adhesive stains. Armstrong's non-staining N-111 or N-170 Adhesive solves this problem on chair backs and similar vinyl uses.

Many other exacting bonding applications are being handled every day by Armstrong's Adhesives. Perhaps you have a fastening problem you'd like to talk over. Call us or write for our new manual on Adhesives, Coatings and Sealers. Armstrong Cork Company, 8004 Indian Road, Lancaster, Pennsylvania. In Canada, 6967 Decarie Boulevard, Montreal.

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". . . the average buyer of travel will be a better credit risk . . ."

PAN AM starts on p. 66

Europe costing $927.40 each, or a total of $1,854.80. They want to pay 20% down, the rest in 12 installments. Eliminating odd cents, the 80% balance figures out to $1,483.

(2) Roe's note figures out to $1,660.96 to be paid in 12 monthly installments. He signs a credit application for the amount, listing—since this is an unsecured loan—his employer and salary, total income, major debts, and three credit references.

(3) The application goes via Pan Am's nearest sales office to a Beneficial office for a credit check; this takes an average of four days, never more than seven, can be done in 24 hours by telephone if speed is essential.

(4) Roe gets his tickets from his agent, signs the note. The agent's commission comes out of the down payment. Pan Am discounts the note for the amount of the unpaid balance of the cash cost, in this case $1,483. Beneficial keeps the difference between this figure and the amount of the note—in this case $177.96—as its fee. Under the present plan, the first installment is due from Roe one month from the date of the note, even if he's still abroad. It's likely this will be changed later to delay the first payment at least until Roe gets home.

• **Risks and Gains**—In the final analysis, Pan Am bears the full risk: If Beneficial is convinced that the debtor has really defaulted, Pan Am must pay it the full balance still due. But both are pretty sure the loss will be insignificant. Beneficial's net write-off on all its small-loan and consumer credit paper over many years has averaged less than ½%. And both Pan Am and Beneficial believe that the average buyer of foreign travel will be a better credit risk than the average installment buyer or small-loan borrower.

Pan Am says the scheme can be used equally well as a prepayment plan for those who don't like to go into debt—a sort of a Christmas Club idea by which you can buy your ticket eight to 12 months in advance and pay off all the installments before you leave.

Selling travel on credit has been tried before, but earlier plans have all involved getting a bank loan; KLM announced one a couple of months ago in cooperation with National City Bank of N. Y. Such a bank loan is limited in amount, while the new plan covers the entire cost of a trip, requires no co-makers or collateral, is nationwide instead of local in scope.

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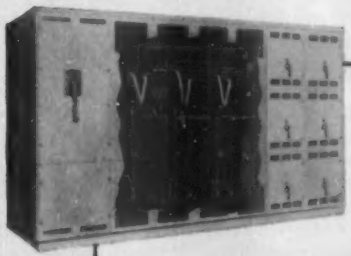
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WT54-3



How to Aim a Gun

• **When Daniel Boone** shot a squirrel out of a tree at fifty yards, he had to estimate in his head the range, the wind, and the ballistic characteristics of the shot he fired. Practice, experience and a steady hand made a good marksman.

• **But the problems** which arise when a warship is firing a shell at another ship nine miles away become gravely complex. The sureness of aim and fire of a Daniel Boone would not be of any use. Just examine some of the problems:

• **The ship that is firing** is moving and its speed and heading must be taken into account. So must the movement of the target. The ship which is firing is rolling, pitching and yawing. The barometric pressure, gravity, wind and drift affect the path of the shell. These and the curvature of the earth must be taken into account when firing. To make naval gunfire solutions even more complex, try to visualize the problem of aiming a gun at an airplane that is moving through three dimensions and is also attaining speeds that require the solution of all the aiming problems in a split second.

• **To enable our ships** to fire accurately, computers were designed that solve these many problems almost instantly. Controls were made which keep the guns pointing at the computed position regardless of rolling and pitching of the deck.

• **Analog computers** of this nature are Ford specialties. Such engineering "know how" is solving many complex problems for industry and the armed forces.



20,000 MOVING PARTS

• **Pioneers in the field** of naval gunfire control, the Ford Instrument Company has since 1915 been designing and building the computers and controls which have made our naval marksmanship famous. Whether it be an electro-mechanical computer like the one shown above (which does 150 additions, 15 multiplications, 10 trigonometric resolutions, 10 integrations and scores of other computing steps); or one of the latest designs for the jet age (with hundreds of vacuum tubes), the instruments designed and built by the Ford engineers have been leaders in this field.

Each year Ford Instrument Company is adding to its staff of several hundred engineers. If you are an engineer and can qualify, there may be a position for you.

20

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Used Tractor Business Grows

Caterpillar goes after the farm equipment trade-in business . . . Food stores increase their cut of the toiletries market . . . Fair trade manufacturers cut prices.

The tractor and implement industry is finding itself in the same position as the auto industry: To sell more new equipment it has to help dealers dispose of turn-ins.

Before World War II, there were about one to one-and-a-half trades involving used tractors and attachments for every new unit sold. Today the average has risen to about three to one, because:

• More tractors and equipment are in use.

• The trend of purchasers is to trade up in order to improve operating efficiency.

This week Caterpillar Tractor Co. announced a promotional program to help its dealers move used equipment—and thus help Caterpillar sell more new equipment.

Heart of the program is a guarantee calculated to assure purchasers of used equipment that they will get quality and long service.

Purchasers of Cat Dealers' "Bonded Buy" equipment will receive a 30-day guarantee against defective parts, backed by a master bond issued by the Travelers Indemnity Co.

"Bonded Buy" applies only to selected Cat-built equipment, including attachments of any make on the machine at time of purchase. To cover other equipment, Caterpillar has two other agreements:

"Certified Buy" includes machines not qualified for the top guarantee, but carries the dealer's written assurance, with terms tailored to the particular machine;

"Buy and Try" is a term for on-approval purchases.

Caterpillar isn't the only firm moving in the direction of aggressive promotion for used equipment. International Harvester Co., for example, recently revived a dealer guarantee program, and gave one of its officials a full-time job promoting this program with dealers.

The I-H program involves two types of guarantees:

• For selected equipment, a 100% guarantee on parts and labor for 90 days.

• For other equipment a 50-50 warranty for 30 days, with cost of parts and labor split evenly between buyer and seller.

With the return of the seasonal pattern of buying, plus increasing competition, other makers of farm and industrial equipment are also pushing dealer sales of used equipment.

●

Drugs at the Grocery

More and more people every year pick up their aspirin and toothpaste along with the bacon and eggs at the supermarket and grocery store; it saves a special trip to the corner druggist's. The trend, which started during World War II and has been mushrooming ever since, will bring food stores of all types a $500-million business in drugs and toiletries this year—up 50% from 1952—according to the latest annual survey just released by the trade magazine Progressive Grocer.

Food stores now handle 194 items in the "health and beauty aid" category, as compared with 128 two years ago, the magazine reports. Supers, superettes, and small groceries have garnered over 40% of the market in the drug and toiletry items that they commonly sell. Nearly nine out of every 10 stores of this type now stock proprietary or "patent" medicines, toilet articles and cosmetics.

The trend is no passing fad (BW—Feb.17'52,p158). It can be attributed to several factors: the convenience of one-stop shopping; growth of self-service marketing; increase in suburban retail centers.

• **Worried**—The druggists are more concerned than ever over the sales they are losing to the grocers. The backbone of drug stores' volume, however, is still prescription drug items—which accounted for nearly $1-billion last year, a quarter of total sales.

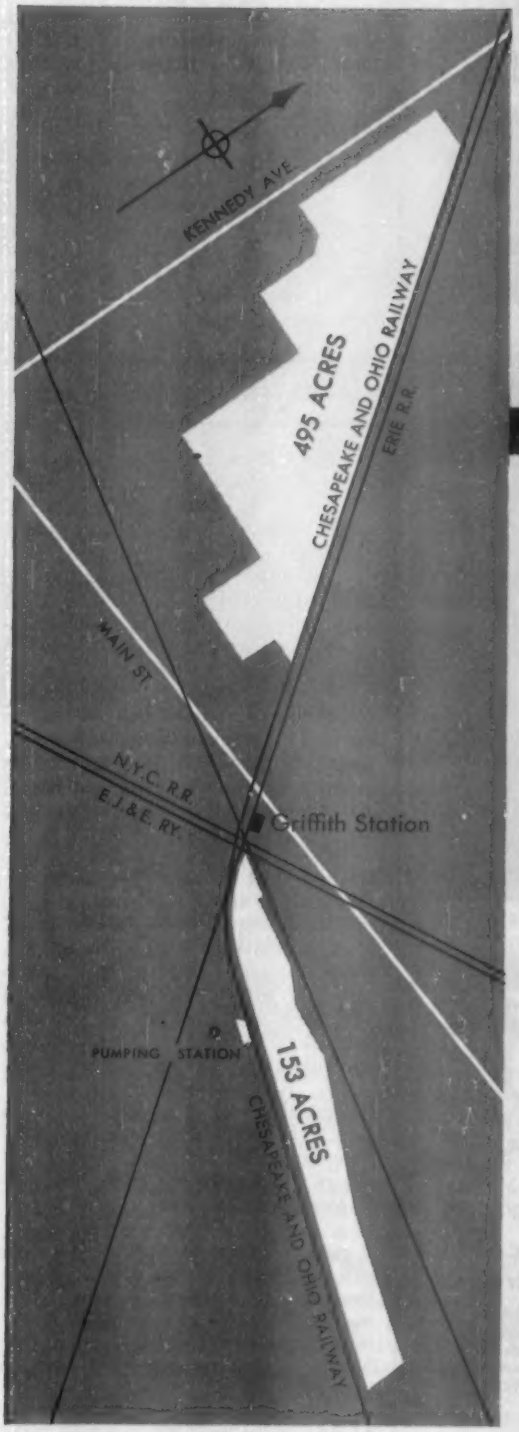
Drug retailers are waging their so-called "restrictive sales" fight in various state courts and legislatures to limit the medicines that can legally be sold through outlets that do not employ registered pharmacists.

• **Happy**—Meanwhile, the food outlets are quite happy. About 6¢ of every gross profit dollar they earn comes from drug and cosmetic items. And the net profit on these items is nearly four times as great as that on sales as a whole.

●

"Fair Trade"—But . . .

"Fair trade" manufacturers have turned to an old gimmick to clear slow-moving inventories of hardgoods:



Why not go where the labor is?

From the chiefly residential town of Griffith, Ind., hundreds of industrial workers commute daily to Hammond, Gary, East Chicago and Whiting. Many of these people have moved out to the Griffith area to get away from the congestion and less pleasant living conditions in these older industrial centers. Undoubtedly these workers would welcome jobs closer to their homes.

In addition to its favorable labor situation, Griffith offers exceptional transportation advantages. It is the junction point for five railroads — Chesapeake and Ohio, Erie, New York Central, Grand Trunk and Elgin, Joliet and Eastern (Chicago Outer Belt Line).

The C&O owns a 153-acre strip of land running southeast along its tracks for nearly two miles which would be suitable for industrial development. Just across the tracks from this is a group of wells, pumping station and softening plant which is available for anyone who needs a supply of conditioned water. There are several other potential sites north of Griffith and in nearby Highland, some of which are also shown on the map.

Give us your requirements and we will prepare a special Pin-Point Survey for you on this or other sites that meet your particular needs. Address: Chesapeake and Ohio Railway, Industrial Development Department, Cleveland 1, Ohio, Detroit 2, Mich., or Huntington 1, W. Va.



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slashing prices to their retail outlets as part of spring promotions. International Silver Co. and Oneida Ltd. have announced cuts up to 25% on their silverplate; Elgin National Watch Co. dropped its watches 20%. These are short-term cuts, coupled with other special seasonal promotion deals to speed inventory turnover at the retail level. But they raise the question of how much respect retailers will keep for the price maintenance structure if the manufacturers themselves disregard it even temporarily.

MARKETING BRIEFS

Smell-appeal for bread loaf wrappers—achieved by impregnating the waxed paper with the odor of fresh white or rye bread—is the latest gimmick to tickle the consumer's senses. Specialty Papers Co. of Dayton has added this feature to its wrappers, which have already been made insect-repellent, dust-repellent, and antioxidant.

•

Cuba's TV industry, a multimillion-dollar business second only to that of the U. S., is reported facing bankruptcy. Unable to support its five channels, the industry is losing an estimated $100,000 a month. Too many stations and high costs are blamed.

•

Spring is best for auto sales theory was borne out by statistics on new car registrations during the 1930-1941 "normal" years, gathered for a study—by the National Automobile Dealers Assn. Averaged out over the period, April and May each accounted for 11.5% of a year's total registrations, June 10.5%, and July 10.1%.

•

Biggest electrical ad display along New York's Hudson River will be erected by Yale Transportation Corp. It will consist of a replica of one of its trucks 75 ft. long and 30 ft. high.

•

A graduate course in retail management will be run by National Sales Executives, Inc., at Rutgers University, starting July 19. The course will be similar to the sales and marketing seminar that NSE held last summer (BW—Aug.29 '53,p102).

•

Matches for money: Five cities are testing a merchandising plan whereby special Sav-A-Match matchbooks dispensed from cigarette vending machines are redeemable as nickels or dimes on purchases made at participating stores. Sav-A-Match Corp., which originated the idea, is headed by tobacco distributor Larry Wurman and Robert Z. Greene, president of Rowe Corp., manufacturer of vending machines.

roadways made easy



PHOTO COURTESY HETHERINGTON AND BERNER INC., INDIANAPOLIS, INDIANA

Chrysler *Power helps keep America rolling . . . at less cost*

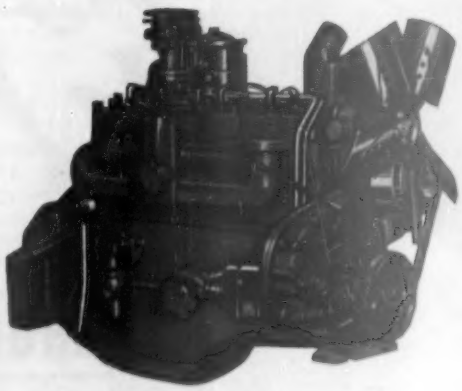
This mobile mixer-paver replaces costly man-hours with economical horsepower. In one continuous operation the unit takes in sand, gravel, stone or other road surfacing materials, mixes them in with a binder ingredient—all in predetermined proportions—and spreads the mixture onto the roadbed, to whatever depth best meets grade and crown requirements. Materials to be mixed may be fed to the unit from trucks, as in this case, or picked up from windrows with a loader attachment. The entire operation requires the services of three, possibly four, men.

The Hetherington and Berner Moto-Paver turns out up to 120 tons of mix per hour for resurfacing jobs. Paving width is adjustable from 8½ to 12 feet, depths to 7 inches. Paving speeds start at two feet per minute. Road speeds up to twenty-five miles per hour enable the equipment to carry itself from one job to another.

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If your equipment requires power within our 230 to 413 cubic inch displacement range, engines that will operate equally well on gasoline, natural or L-P gas fuels, engines ideally suited to power take-off, see a Chrysler Industrial Engine Dealer. He can *power-fit your equipment for best performance in the field.*

Remember, too, that Chrysler Power is not expensive. Production-line methods adapted to specialized industrial engine building provide a custom-built engine at mass-production prices. If you prefer, write: ***Department 14, Industrial Engine Division, Trenton, Michigan.***



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SANDERSON-HALCOMB WORKS, SYRACUSE, N. Y. • TRENT TUBE COMPANY, EAST TROY, WISCONSIN • NATIONAL DRAWN WORKS, EAST LIVERPOOL, OHIO



MONROE JACKSON RATHBONE took the inside track to the presidency of giant Standard Oil of New Jersey. In the company's system of growing its own management . . .

The End Product Is a President

When Monroe Jackson Rathbone (picture) was elected president of the Standard Oil Co. (N. J.) last fall, it was of course a personal triumph for him; but it also represented an achievement for the company.

If Rathbone is successful in the new post he assumed on Jan. 1, that will also mean success for the Jersey company in producing from its own ranks the right man, ready at the right time to take over the job of its seventh president since the grand dismemberment of the old Standard Oil in 1911.

• **From Within**—A corporation that can produce from within its own structure a strong new president is accomplishing one of its basic purposes: self-perpetuation. An essential aim of management, after all, is to generate its own kind—with constant improvement in quality, if possible, but at any rate men who fit the traditional pattern of the business.

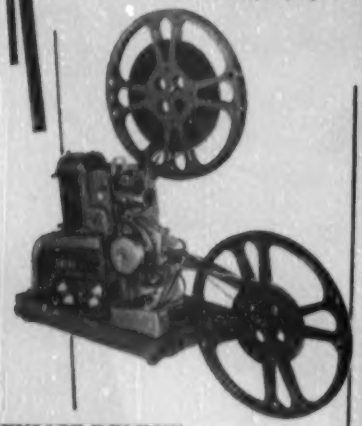
This is the guiding principle in a number of giant corporations. When a du Pont or an AT&T promotes one of its own men to the presidency, it isn't blindly abiding by seniority dogma. It does so because it believes the job of running a multimillion-dollar operation requires maximum training and indoctrination, not just in the industry but in the company itself. Such corporations hold to the view that an outsider, no matter how able, would not fill the bill in a post near the top of a giant company any more than a bone surgeon would be the right man for delivering babies.

There's no question that the company of which Rathbone is now the second ranking officer falls into the category of giant corporations. Jersey Standard's annual report for 1953, published last week, listed consolidated gross income of nearly $4.3-billion for the parent company and its 160-odd affiliates in the Western Hemisphere. The consolidated net income was a record high $553-million. In contrast, General Motors Corp.'s net was $600-million, but its gross sales were $10-billion.

• **Committee Rule**—It would be misleading, however, to intimate that this impressive financial statement is now encased solely in Jack Rathbone's briefcase. The Jersey company is committee-managed, and its five-man executive committee, which meets daily, is the boss. Heading the committee is Eugene Holman, 59, who preceded Rathbone as president and was moved up to take Frank Abrams' post as board chairman when the latter retired

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PRESIDENT Jack Rathbone isn't the tycoon type; the key is friendly relations.

Jan. 1. Rathbone, who is 54, serves as vice-chairman of the committee, and three vice-presidents complete the group. But Rathbone, as president, is the second in rank in what is certainly the nation's largest and probably the world's largest oil company.

• **From Youth Up**—Rathbone is really as much a product of the company as are the 2-million bbl. of oil products it markets every day. His career is a living example of the philosophy of catching the bright ones young, training them in the company's traditions and inoculating them with its hopes for the future, testing them out with more and more responsibility, and picking off the best for the ultimate top leadership.

Rathbone has been doing things for Standard Oil ever since he graduated from Lehigh University (Chemical Engineer, Class of '21). From Lehigh, Rathbone went right to work at the Baton Rouge refinery of the Standard Oil Co. of Louisiana, then a Jersey company subsidiary. Five years later he was assistant to the general superintendent of the refinery, and in 1931 he was made general superintendent. After two more promotions at Louisiana, he became its president at the age of 36.

During these years, he adopted Baton Rouge as his home country, and he has never changed, even since his move to New York. That came in 1944 when the Louisiana subsidiary was absorbed by the Esso Standard Oil Co., Jersey's eastern refining-marketing subsidiary. Rathbone was brought to New York and made president of Esso. Thus, the bulk of his experience has been in refining and marketing.

• **At the Center**—A broadening came, however, with the next change in 1949, when Rathbone was made a director of the parent company. As with his promotions in Baton Rouge and the shift to New York, the advance seems in retrospect almost to have been on schedule. Rathbone had been moved steadily upward, and toward the center. Of course, other men were also moving up and in; that is part of the company method. But with the passing years, fewer and fewer were in the competition. A notable scratch: Leonard McCollum, who left Jersey in 1947 to become president of Continental Oil Co. (BW—Dec.29'51,p68).

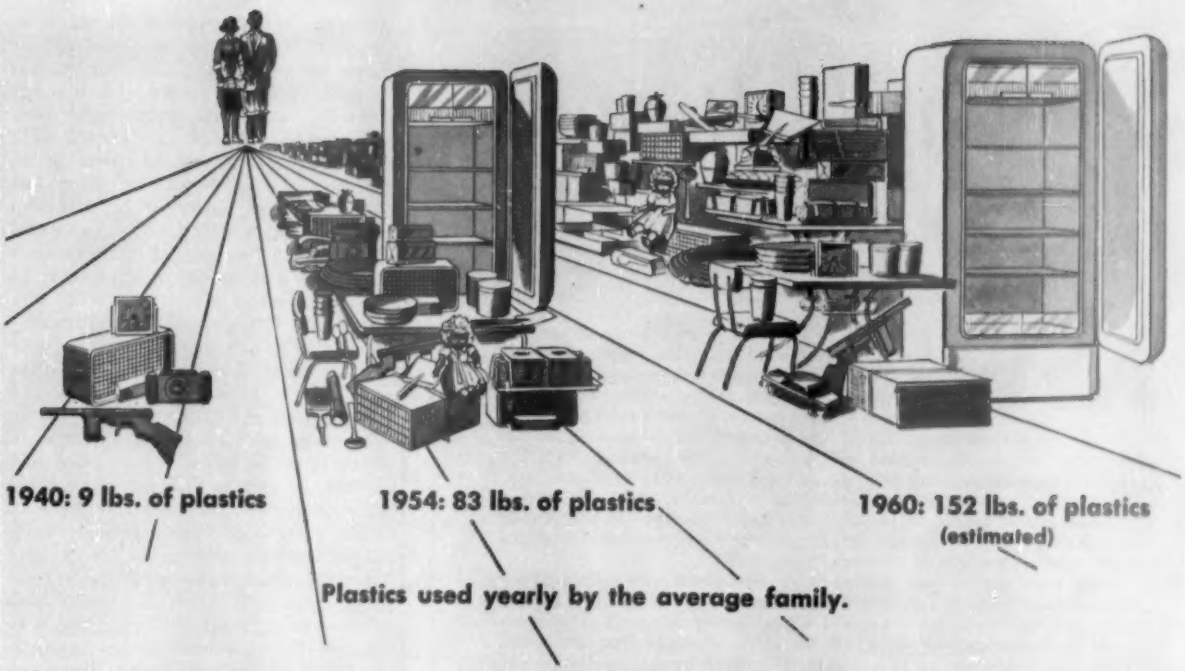
Coming after his 13 years as an affiliate president, the four years as a director gave Rathbone the necessary experience at the top level of the parent company. Jersey directors are "working directors." That is, they may not serve on any other board; they come to work every day; and they take an active part in the operation of the vast Jersey system. The completely "officer board" setup at Jersey has always aroused considerable discussion among business theorists. But the arguments cool a bit when the subject of profits comes up.

• **Up to the Top**—An old friend of Rathbone's says he "fits the pattern" of a Jersey president on all counts but one: "He's not overly strong on production." But the old friend adds, "Of course, they've still got Gene Holman for production, so it doesn't make much difference."

The lack of deep experience in production might hurt a Jersey president, for that's where the company has built its strength, but there are two reasons to believe this may not matter: (1) Jersey is also enormously strong in refining and marketing—Rathbone's specialties; (2) Holman, a production expert, is backstopped by another member of the executive committee, vice-president John R. Suman, who, like Holman, came from Jersey's Texas subsidiary, the Humble Oil & Refining Co. So Rathbone is bracketed by production men. The other two members of the executive committee are vice-presidents —J. E. Crane (background in finance) and Chester F. Smith (background in refining and transportation).

In general terms, in running the company, Rathbone will stand facing inward, and Holman will be looking outward. Rathbone says: Mr. Holman and I are thinking in terms of a team policy. He will act primarily as a representative of the stockholders, while my part will be closer to the actual operations of the system."

• **Personal**—Jack Rathbone, very like Abrams and Holman before him, bears hardly even a family resemblance to the portrait of a ruthless oil king that star muckraker Ida M. Tarbell painted 50



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SERVING INDUSTRY...
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Rockwell Report



by W. F. ROCKWELL, JR.
President
Rockwell Manufacturing Company

IT COMES AS A SHOCK to people not associated with production to learn the extent to which the United States' vital metal working equipment is obsolete. According to one survey, almost one out of five machine tools is over twenty years old, and two out of three are pre-World War II models. This is especially serious when you consider competition with a Germany, for instance, which has almost completely re-tooled since the war, and enjoys a 51¢ wage rate.

The major reason for the obsolescence of America's basic production equipment is, of course, the unrealistically low depreciation rate arbitrarily imposed on American industry. Replacement of major items of obsolete or worn out machines is often a financial impossibility.

Some years ago we experimented in our own plants with the use of our Delta Power Tools to supplement—or replace—heavy, expensive, conventional machine tools. We discovered several interesting things. The power tools were accurate enough for all but a few toolroom type operations. They were rugged enough to stay accurate in day-after-day production use. Maintenance was negligible. And because they were so inexpensive, they could be kept tooled and shifted into and out of production lines as needed with considerable savings in set-up time.

After proving these results for ourselves, we passed them along to our customers. The result has been called "the new industrial revolution in production thinking"—a rising trend toward the use of inexpensive, moveable power tools where heavy machine tools were used before. It is a sensible solution for many companies whose profits are being squeezed between rising costs and stiffening competition.

* * *

At the Chicago plant of our subsidiary, Edward Valves, Inc., almost 25 per cent of all employees are now attending school. The company provides several advanced education courses on subjects related directly to the management of that plant. In addition, there is wide participation in evening schools of nearby universities. We encourage this, of course, as part of our company-wide policy of preparing employees for advancement from within the organization.

* * *

Several people who have seen our budget procedure operate have suggested that it might be interesting to others. In the Fall, each of our plant managers and sales division heads prepares a fiscal year budget for approval by the Budget Committee. Then, before the start of each quarter, a quarterly budget is also submitted, since order intake, shipments, and other factors vary from quarter to quarter even though the full year's budget is accurate. As a final step, by the twenty-fifth of each month a budget is prepared for the month to follow. We find this procedure extremely useful for financial, purchasing and other forecasting, and also as a goal for sales and production men.

* * *

Interesting facts about Rockwell products: A prominent "auto laundry," washing between 1,000 and 1,100 cars a day, uses Nordstrom plug-type lubricated valves on both their city water line and on their own well water line. They do so because the Nordstrom valves operate with a quick quarter turn, instead of many turns needed for the type commonly used in such applications . . . At an ultra-modern pier in the Florida Keys, our Rockwell tropic meters—one at each berth—measure the fresh water taken aboard (at 1¢ a gallon, since it must be piped from the mainland) by the fishing yachts which tie up there . . . The program of re-packaging our line of Delta Band Saw Blades has been completed; early reports indicate that the bright new cartons have stimulated impulse buying of Delta Blades by home craftsmen and "do-it-yourself" enthusiasts.

One of a series of informal reports on the operations and growth of the
ROCKWELL MANUFACTURING COMPANY
PITTSBURGH 8, PA.
for its customers, suppliers, employees, stockholders, and other friends

years ago in her history of the old Standard Oil trust. As is the fashion these days, he doesn't even fit the current popular idea of a tycoon. He is a big friendly man who enjoys light conversation and jokes on himself. He doesn't appear to depend either on intellect alone or personality alone—but both are strong factors in his make-up. He is known to his friends as a careful listener and a weigher of opinions, who offers no snap judgments but sticks to his conclusions.

• **At the Office**—Most of Rathbone's day (9:00 to 5:30) is spent talking with other people. The executive committee meets from 11:00 to about 1:15, and usually four or five directors not on the committee sit in. All the directors in town lunch together, but as nearly half of the 14 are on the road at any one time, the group includes only seven or eight men. The table is filled by visiting executives, in from various affiliates over the world, or by other guests.

A principal reason for an affiliate president to come to New York is to discuss the personnel in his organization. Every year, the parent company, by exercising proxies, puts its stamp of approval on the boards and officers of the 160-odd controlled affiliates. This is a primary function of the Jersey board. Rathbone says: "Our whole philosophy depends for its success on good management in our decentralized affiliates."

• **And Elsewhere**—Away from the office, Jack Rathbone is literally just another commuter. In the morning, he drives from his Summit (N. J.) home with two associates, but at night he follows the hurried, jump-by-jump procedure of getting—by subway, then tube, then train—from midtown Manhattan to a New Jersey suburb.

He admits, without the usual pride, that he works out of his briefcase at night ("There are an awful lot of things to keep up on—there's no substitute for knowing the facts"). He doesn't read much outside literature ("We have a wide variety of things to read thrown at us"). He watches TV occasionally, likes to dabble in cabinet making.

• **Always Oil**—But most of the time he thinks about the oil business, and his thoughts at the moment are optimistic. He says, "We don't see the slightest tendency toward cessation of growth of the industry. As far ahead as we can look, we can see growth." Rathbone adds, however, that much of the burden for future growth will be abroad because "we are a more mature economy oilwise." He feels there is a tremendous potential abroad for the consumption of oil. The U. S., he notes, annually uses about 17 bbl. of oil products per capita. The rest of the world uses only 1 bbl. That, Jack Rathbone concludes, is real potential.



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...they cost less to build than not to build

Each day, thousands of cars and trucks join the millions already jamming our overworked highway system.

Each day, motorists pay the toll of additional lives and thousands of dollars in time lost on inadequate roads. It actually has gotten to the point where, in many cases, it costs less to build new roads than not to build them.

To relieve this dangerous national bottleneck, contractors everywhere are speeding the completion of thousands of miles of new construction. Blaw-Knox equipment is helping them build stronger, safer highways more rapidly and more profitably.

Blaw-Knox builds the most complete line of concrete and blacktop construction equipment available, including: batching plants, pavers, spreaders, finishers, forms and others. You'll find more of it in use than any other equipment made.

Blaw-Knox engineering achievements are increasing productivity and lowering costs in major fields of industry. The list of products and services below is indicative of the broad scope of its activities.

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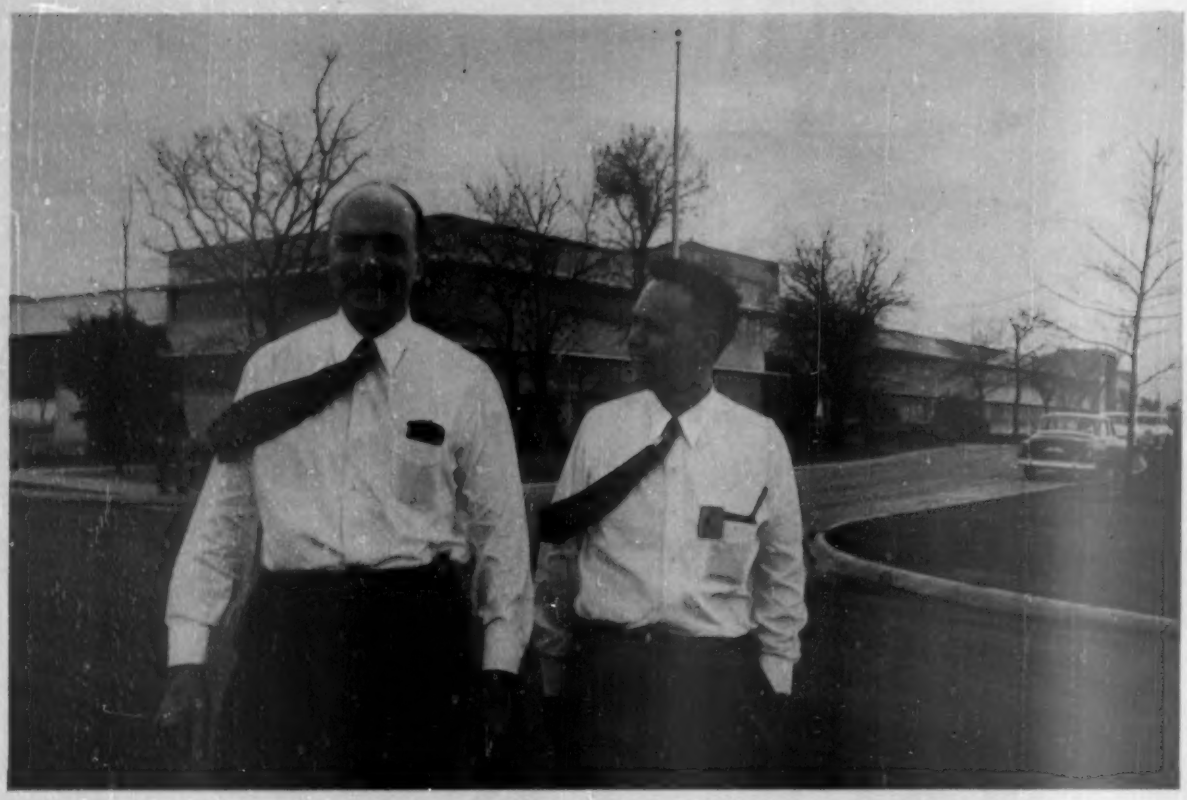
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Rolls Division
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TEXAS INSTRUMENTS, INC., is publicly owned now. J. E. Jonsson (left) and P. E. Haggerty smile as they show how . . .

They Bought Stockholders Readymade

It's nice to be out in the sun. The two smiling men in the picture above are in the open air financially as well as physically. They have converted their company into a publicly held affair, after years of closed ownership.

The smilers are J. Erik Jonsson and Patrick E. Haggerty, president and executive vice-president of Texas Instruments, Inc., of Dallas. In the last few months they have led their company through the critical transition known as "going public." It's a transition that every closely held corporation at least considers some time. Here's why and how TI did it:

• The company was growing fast, and wanted to keep right on growing. It wants to be a big corporation—and institution. But it worried over the risk—and difficulty—of operating in the big time on a narrow ownership base.

• TI decided the quickest way to broaden its ownership was to merge with a company that already had plenty of stockholders—say, one on the New York Stock Exchange where 1,500 is the minimum.

That's just what TI did. Last fall, a new listing, TXN, appeared on the Big Board, and an old listing, IRU, disappeared. Texas Instruments had made its public debut by merging with the nearly dormant Intercontinental Rubber Co., of New York. The dormancy didn't matter for TI. It might as well have merged with a buggy whip distributor or an antimaccassar weaver. What it wanted was a stockholder list and assets.

• **Doing Nicely**—Next week, TI will hold its first annual public meeting. New stockholders will get their chance to hash over the 1953 report, published at the end of March. The report shows rather healthy looking figures for a company that just made the Big Board. Total assets were over $14-million; net sales were $27-million; and net income before taxes was $1.3-million. All this for a TI that was a virtual unknown until last year. Erik Jonsson says, "We were lying behind a log."

The difficulty was, TI was getting to be too big an animal to stay hidden. Besides, the risks of tight ownership—lack of assured perpetuation, for instance—were becoming too great, and financing was straining at the short-term leash to which privately held companies are often tied.

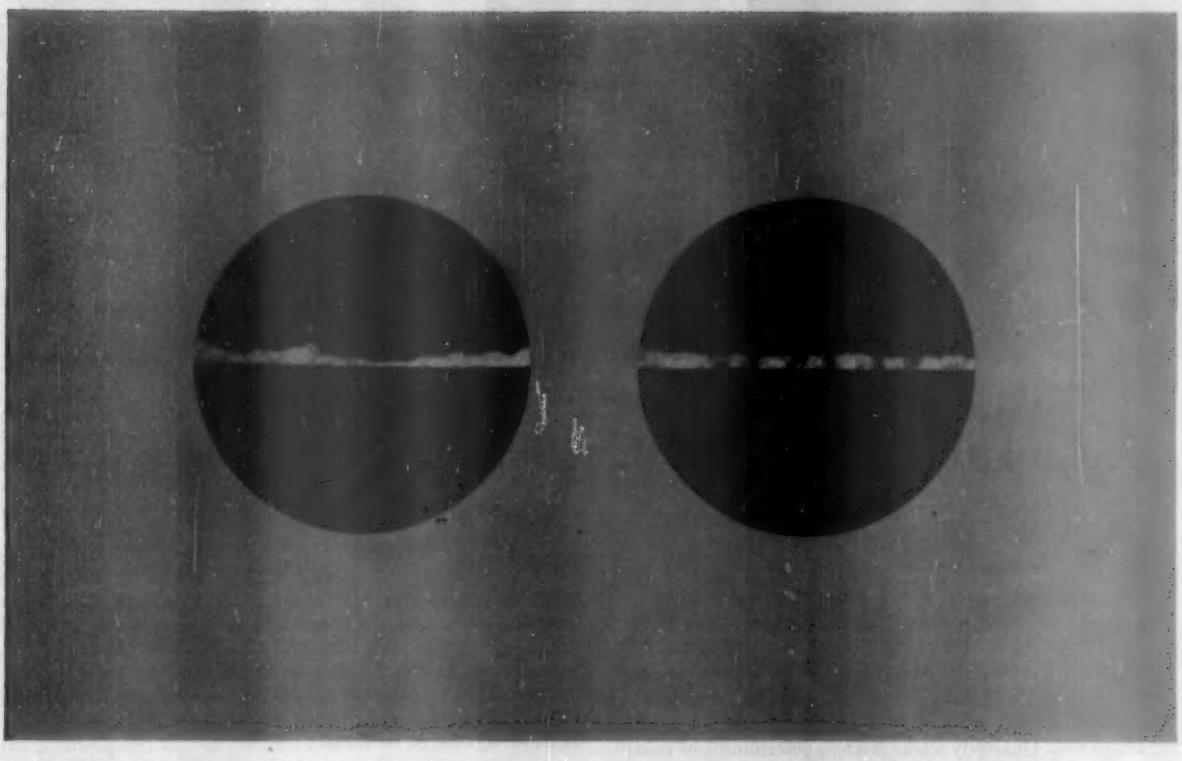
• **Amalgam**—TI is a collection of 12 corporations: itself and 11 wholly owned subsidiaries. The history of its organization doings is about as complicated as the last 50 years in the Balkans. The earliest ancestor was Geophysical Service, a Newark (N. J.) firm, founded in 1930, that has seismographic crews under contract to oil producers. During the 1930s, the company went through some ownership changes, moved to Dallas, hired Erik Jonsson (a mechanical engineer) as lab superintendent, and began to manufacture and develop most of its specialized seismic instruments and equipment.

During World War II, the company had some small electronic equipment contracts, but it was never a major war supplier. Then, right after V-J Day it took a most unconventional step. At a time when companies everywhere were falling all over themselves getting out of war work, Geophysical Service went after military business.

At first, there was only a dribble, but by 1950 the company was busy making airborne magnetometers, radar systems, and sonar for submarines. That year, Erik Jonsson became president.

The next year the company changed its name twice, the first time to General

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How to keep cool when the heat's on

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One firm that stoked up its firing line without getting burned is the Eclipse Fuel Engineering Co. of Rockford, Ill. Eclipse is one of the largest manufacturers of gas, oil, and oil-gas burners for industrial heat processing.

To produce 2,300 end products, Eclipse carries an inventory of 15,000 parts, 2,000 castings and 2,000 sub-assemblies. Quarterly sales forecasts determine how many parts to manufacture or buy for fast delivery service.

Because many end products and sub-assemblies employ the same parts, Eclipse has a complicated inventory problem. To "explode" its end products and sub-assemblies into parts, the company uses a "master deck" of McBee Keysort cards – one card for each part of any given product.

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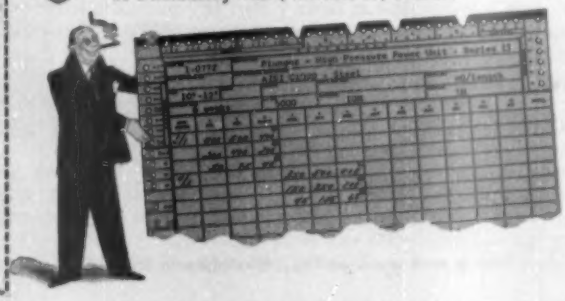
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Instruments, Inc., then to Texas Instruments, Inc. (This, of course, was a period of growth and expansion.) Geophysical Services, Inc. (called GSI), lived on as a subsidiary. About the same time, three other subsidiaries were formed to operate seismographic crews in Canada, Spain, Saudi Arabia, and Africa. Sales, which had been around $6.4-million in 1949, were up to $20-million in 1952.

• **Branching Out**—TI started last year with five subsidiaries and ran the number to 11 before the year was out. To improve its distribution, it acquired the 17-year-old Engineering Supply Co., which sells supplies to geophysical exploration teams. To enlarge its product line it acquired (by trading 27,650 shares of common) Houston Technical Laboratories, which sells entire seismic systems and makes such things as quartz springs for instrument makers. Houston has now taken over the making of seismometers, and other geophysical instruments for TI. To expand its field operations, TI also acquired three more small corporations with seismographic crews. Two of these operate ocean-going equipment for offshore oil explorations.

The management reorganization task, which obviously was a corker, fell to Pat Haggerty.

• **Going Public**—Finally, last October, TI merged with Intercontinental Rubber, but this was for an entirely new purpose. TI now wanted to start showing itself to the world.

A Big Board listing would do that quickly—and Intercontinental had that if little else. TI's first idea was to merge upward into Intercontinental. But to do that would mean losing TI's corporate identity and confusing its customers—particularly its prize customer, the U. S. Government.

So TI decided to merge Intercontinental into itself, and in the process was able to get a new listing for the merged company from the New York Stock Exchange.

This was possible because of TI's newly acquired stockholder group and its obvious solidity, even though Intercontinental was known on Wall Street as a highly speculative stock.

There were reasons for this repute. By 1953, the rubber company had come almost to a standstill. It had operated in Mexico and in Sumatra, but various adverse circumstances—drought, synthetics, transportation, currency conversion and World War II—hurt business considerably. For the 1953 months up to the merger last fall, Intercontinental had lost $219,000. As far as potential was concerned, it was not much of a buy. But it had what TI wanted: $1.4-million in liquid assets and something over 1,700 stockholders.

• **Three Big Holders**—Before the merger, TI had 52 stockholders, but three—Jonsson, board chairman Eugene McDermott, and GSI president Cecil H. Green—owned 67% of the stock. Shares were restricted to officers and employees of the company. Jonsson says, "We began to think of the hazards if one of the large stockholders should die. His stock might be inherited by someone whose interests, to say the least, were not as enthusiastic and, to say the most, might be detrimental to the interests of TI."

Jonsson says there were other advantages to going public. Previously, whenever the company needed money, the major stockholders got some together. There was always short-term financing. But with broad ownership, shareholders could sell their common at will or buy at will, without fearing they would jeopardize the interests of TI.

• **The Obverse**—There were disadvantages, of course. Jonsson says, "There is a lot of advantage to the fellow lying behind the log." As a sleeper, TI had been whisking contracts away from competitors before they knew what hit them. Because it was unknown, TI simply hadn't been reckoned with. Once out in the open, it could no longer surprise people. Furthermore, with broader ownership and an enlarged board, TI would sacrifice speed for breadth. Management would have to devote more effort to stockholder relations. There would have to be public annual meetings and more thorough annual reports. Finally, there would be the inevitable clamor for dividends. TI has paid no cash dividend since 1945, although it distributed some stock to shareholders a year ago.

In the end, TI's owners decided that there was more to gain by going public. On Sept. 30, it merged Intercontinental into TI by issuing 595,832 shares of common to Intercontinental's stockholders in exchange, on a one-for-one basis, for their capital shares. So far, this has been fine for the old Intercontinental ownership. Last year, the rubber stock had a 3¼ low and a 5⅞ high. When TI was first listed on the Big Board, it sold for 5⅛, but since, it has climbed to 7¾ and last week was selling for 7¼.

TI now has 4-million shares of common stock authorized, of which close to 3-million shares are outstanding, including the shares traded for Intercontinental—which has three members on TI's nine-man board. McDermott, Jonsson, and Green, however, own around 54% of the outstanding stock—in relatively equal portions; so they are definitely in control.

• **Sales Breakdown**—The company's 1953 sales volume of $27-million breaks down like this: engineering, development, and manufacturing, 60.4%; geophysical subsidiaries, 32.6% (over half





Progress at Whiting

A Bi-Monthly Series by Stevens H. Hammond, Chairman of the Board

The year 1954 holds special meaning for us here at Whiting Corporation. It marks the 70th year our Company has been supplying many of the needs of industry. While such an occasion usually calls for a review of the past, we would rather look to the years ahead.

Let us consider our country's high standard of living and how it has always been related to the capacity of our plants . . . more directly to the output per worker. The trend of industry, of course, is to increase this output at lower cost by providing the worker with more efficient equipment. In 1953, the nation's total plant and equipment investment came to $27.8 billion or 5% over 1952. In fact, since 1945, $177.3 billion has been similarly invested. Of this amount, approximately 50% was expended by a few large industries . . . public utilities, petroleum, chemicals, iron and steel plants, automotive, railroads and other transportation. It is significant to note that in these industries, Whiting products such as materials handling, foundry, transportation and chemical processing equipment finds its greatest application.

Continued economic growth is apparent in the fact that industry has reported that it will spend over $27.2 billion for plants and equipment in 1954. This falls little short of the all-time high of 1953. Accepted as a barometer of business activity, this figure clearly shows a healthy confidence in our country's economy.

Other factors cause us to have still more faith in the times ahead. Recommended changes in tax laws allowing more rapid depreciation of fixed investment and the elimination of double taxation of dividends certainly will influence the availability of equity capital. When heavy goods are being purchased in quantities there is always prosperity and full employment. The growth of our country, must of necessity, entail continued larger capital outlays, both to replace the increasing amount of worn out or obsolete equipment and to add to plant capacity. Approximately 56% of industry's basic production equipment—machine tools and metal forming units—are obsolete. Out of a total of two million machine tools, one out of two are at least ten years old with one out of five being more than 20 years old. As you can see, the job of providing up-to-date tools for the metalworking industry is bigger than ever before. The types of tools that Whiting manufactures are designed to help satisfy these needs.

WHITING

And during recent years all industry has realized that one of their greatest cost-reducing opportunities lies in handling materials more efficiently. Thus, we feel certain that Whiting's broad line of materials handling equipment has, and will continue to be, in ever increasing demand.

So, on this our 70th year, Whiting is in an excellent position to help meet important equipment requirements in nearly every industry. Efforts in the development of new and better products that increase production, lower costs and improve efficiency will be our constant aim.

Figures shown above were obtained from surveys "Business' Plans for New Plants and Equipment 1953-56" and "Seventh Inventory of Metalworking Equipment" conducted by the McGraw-Hill Publishing Company.

Stevens H Hammond

WHITING CORPORATION
HARVEY, ILLINOIS

from foreign operations); and supply company subsidiaries, 7.3%. Government contracts account for 90% of the manufacturing business, and 55% of the consolidated net sales. TI would like to increase the nonmilitary share, but with a military backlog of approximately $20-million, this won't happen overnight.

White hopes for the civilian market are business in transistors and silicon junction diodes (the latter was introduced to the trade about a month ago). TI got into the potentially tremendous transistor business in mid-1952, when it bought a license to make transistors from Western Electric for $25,000. Four TI men attended a 10-day symposium at Bell to listen to transistor experts. In December 1952, it was producing transistors. A month later it hired Dr. Gordon Teal, a Bell transistor man, to head its program. TI now makes about 500 transistors a day, and expects to hit 1,000 this spring.

• **Strong Stuff**—TI expects to continue, generally, in its present field. It likes difficult work, feels it has the competent staff (20% are engineers or science graduates) to handle that.

John says, "It is out of our line to make a career of buying companies or merging." But if something complements TI, he'll definitely take a look. Should other opportunities for purchase present themselves, Jonsson would prefer to use money, rather than stock. "We don't want to give away lots of stock," he says, "but if somebody would really contribute something, we wouldn't mind diluting our equities."

MANAGEMENT BRIEFS

U. S. Steel Corp.'s first job is steel—but last year it ranked high as a film company, too. It says 11-million people saw its corporate documentary films, about 4-million more than the best previous year, 1943. The boost came with the clearance of several company films for TV.

•

Caterpillar Tractor Co., Peoria, Ill., has a new chairman and president—Louis B. Neumiller and Harmon S. Eberhard, respectively. Both moved up a notch on the retirement of Harry H. Fair as chairman. The board of directors also has decided to discontinue the executive committee, whose chairman, B. C. Heacock, is retiring.

•

General Electric Co. is providing a scholarship for a Boston University junior interested in business communications through "public relations, advertising, and sales promotion."

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This is typical of the way Whiting Crane Engineers serve all industry . . . and a basic reason why performance and cost-conscious management choose Whiting *Engineered* Cranes. Whiting offers a *complete* line of cranes to meet *every* need: electric and hand-power traveling cranes, gantry, stacker, jib and pillar cranes. Write for complete information about Whiting Engineered Cranes today!

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PRODUCTION

Dose of Technology for Packaging

● New materials, and new ways of handling old materials, are giving manufacturers and retailers all kinds of help with their packaging problems.

● The results are lower packing and shipping costs, more attractive and more useful boxes, bottles, and wrappings.

● It's now possible to put a car in a transparent bag. It's also possible—thanks for plastics—to ship carrots without their green tops.

A package nowadays is a lot more than a container. That fact stood out plainly from all the speeches and exhibits at the American Management Assn.'s mammoth packaging show in Atlantic City last week.

The new packages protect the product for a longer time. They make the contents easier and more economical for the buyer to use. Most important from a businessman's standpoint, the package now does much of its own selling. The show pointed up how far new materials and new techniques are going in opening up all kinds of possibilities for packagers—which includes just about every industry.

• **Development Cycle**—In all the new developments, marketing and technology are so closely intertwined that it's often difficult to tell where the strongest pressures to revamp the package are coming from. A marketing trend sets the pattern for a new type of package. Equipment is adapted to produce the new style, but the engineers don't stop at that point. They continue to work on the problem in an effort to cut costs, and out of their efforts come new possibilities for marketing. Then the cycle is repeated.

It came out at the show, for instance, that steel mills are learning how to use lighter-gauge steel in cans. Tin mills are producing differentially coated electrolytic tinplate, with one weight tin on one side and another on the reverse. Can manufacturers are developing organic coatings and new sideseam cements. All of these technological developments will open up new marketing possibilities for canners.

Bottles and jars fit into a different stage in the cycle. Glass has had an envious eye on the fast growing aerosol market now held by cans (insect sprays, shaving cream dispensers, whipped cream). Engineers worked on the problem, came up with mist spray plastic coatings on glassware to reduce the possibility of breakage or explosion. They also set to work on improved processes for making glass, and with closer control they are producing products with greater uniformity.

• **Everybody's Business**—Along with a realization of the marketing possibilities that the new packages offer, there is a growing awareness among packagers of the cost. Packaging is no longer an incidental service. The package is part of the product; and for many consumer items, it's the most expensive part. Dr. Laurence V. Burton, executive director of Packaging Institute, estimates that 87% of the direct labor of the average consumer goods industry is packaging labor. He ranks food as an industry with one of the lowest packaging labor costs—just under 60%.

Besides the labor cost, there is the manufacturing cost. In a spot check, Modern Packaging magazine found that the package represented 70% of the total cost of a tooth paste, 50% of a soap, 8% of a bread. These percentages add up to really big business. One packager estimates that industry spent $14-billion on packaging during the past year.

By and large, the new packages are more expensive than their predecessors. They have to perform additional services, each of which adds to the cost. The place where packaging costs can be cut most efficiently is in the plant of the basic producer. That's why, running all through the packaging revolution, is a shift of the packaging operation away from the retail store to the factory. This shift also brings the package closer to the engineers—which is perhaps another reason why technology is playing a more important role these days.

I. New Packaging

Technology fits into the pattern in several ways. It's providing cost-cutting improvements for the old standard packaging materials. The solid box industry, for example, is now converting from batch manufacturing to continuous production as the result of some new machine developments. Costs will probably come down.

• **Individual Servings**—And high-speed equipment is also making possible some new types of packages. The "individual serving" type is an example. It's designed to eliminate some of the waste inherent in bulk packages.

This type of packaging started many years ago with individually wrapped sugar cubes. Now it's spreading to mustard and catchup. These individual packets may take the encrusted mustard bowl and the clogged catchup bottle off the counters of hot dog stands this summer.

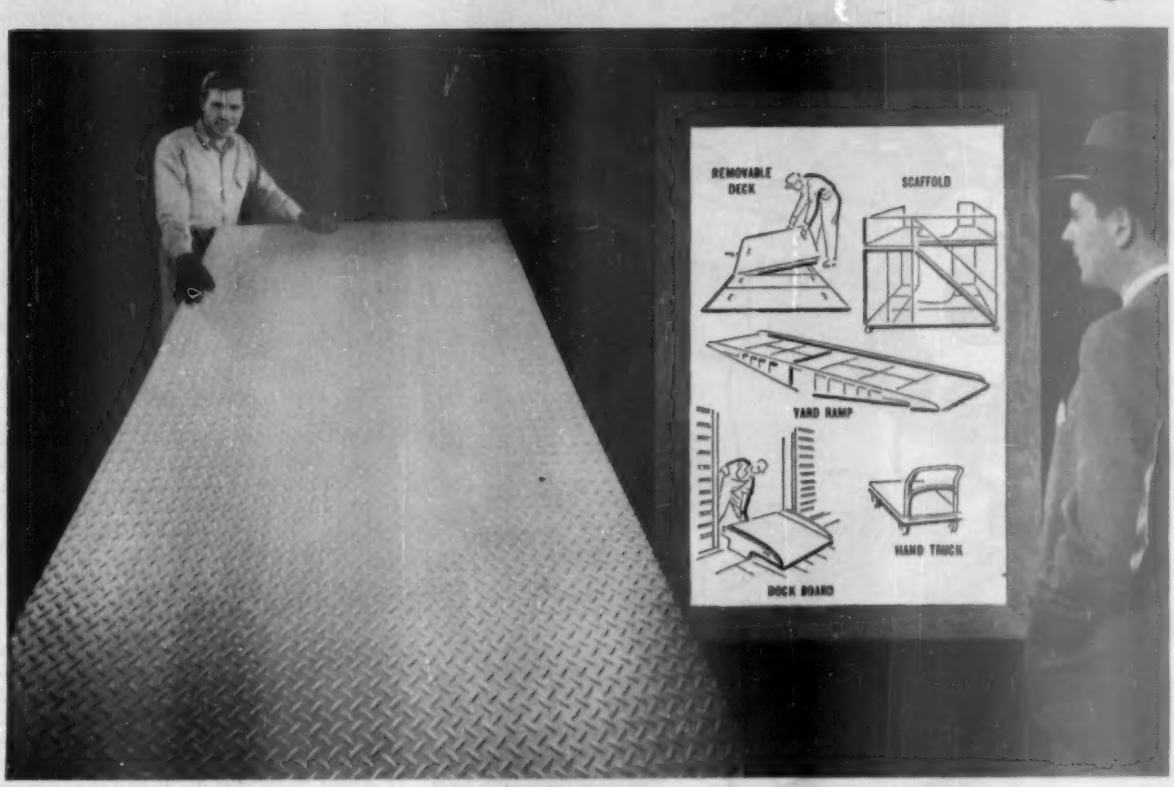
Techniques have been found to package serving portions of all sorts of foods, from pickles to maple sirup. If you've done any traveling lately, you probably already encountered the individual serving of jelly with your breakfast toast. Kraft Food Co. has done a lot of pioneering in this field, using molded Vinylite plastic cups.

• **Multiple Units**—While there is a definite trend toward single-portion packages, there's a counter trend—particularly in supermarkets—toward bigger packages that increase the housewife's check-out total. Technology has found a way to accommodate both trends through the multiple package.

Sylvania Div. of American Viscose Corp. showed several versions of the "piggy-back" or multiple package at the exposition, using cellophane as the outer wrap. These included the combination sales package in which spaghetti sauce is packaged with macaroni. In another package, several kinds of cereal are wrapped together. A bag of potato chips or a package of soup crackers contains several individually wrapped portions. Then there's the familiar bundle wrap of a half dozen candy bars.

• **Re-usable Packages**—Multiple-use packages showed up in great numbers at the AMA show. Dow Chemical Co. and Monsanto Chemical Co. devoted a

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These larger sizes mean faster, more economical fabrication *plus* new design opportunities in the field of materials handling. Look to magnesium wherever weight and motion are important use factors—it will cut employee fatigue, increase operating efficiency.

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good part of their space to fancy plastic containers that first serve as packages and then can be used again for refrigerator dishes, button boxes, and sometimes decorator pieces.

Aluminum foil manufacturers, Reynolds Metals Co. and Aluminum Co. of America, also featured the re-usable package. Their big item is the aluminum foil pie plate or box. It serves first as a container for frozen food. Then it serves as a heating or baking tin when the housewife puts the frozen food in the oven. Next, it serves as a serving tray on the dinner table. Later, it can be put to whatever use the owner chooses.

II. New Materials

Technology has been busiest in the development of new materials. You couldn't turn around at the AMA show without bumping into some new material—more often than not, a flexible one.

• **Polyethylene**—The fastest-growing of the flexible packaging materials is polyethylene film. Last year the two basic producers, Bakelite Co. and E. I. du Pont de Nemours & Co., supplied the packaging industry with about 45-million lb. of polyethylene. It wasn't anywhere near enough to go around. Both companies have expanded production, so that this year they will supply about 90-million lb. It still may not be enough. At least six other major companies, now starting to produce the plastic, are banking heavily on continued growth of polyethylene packaging.

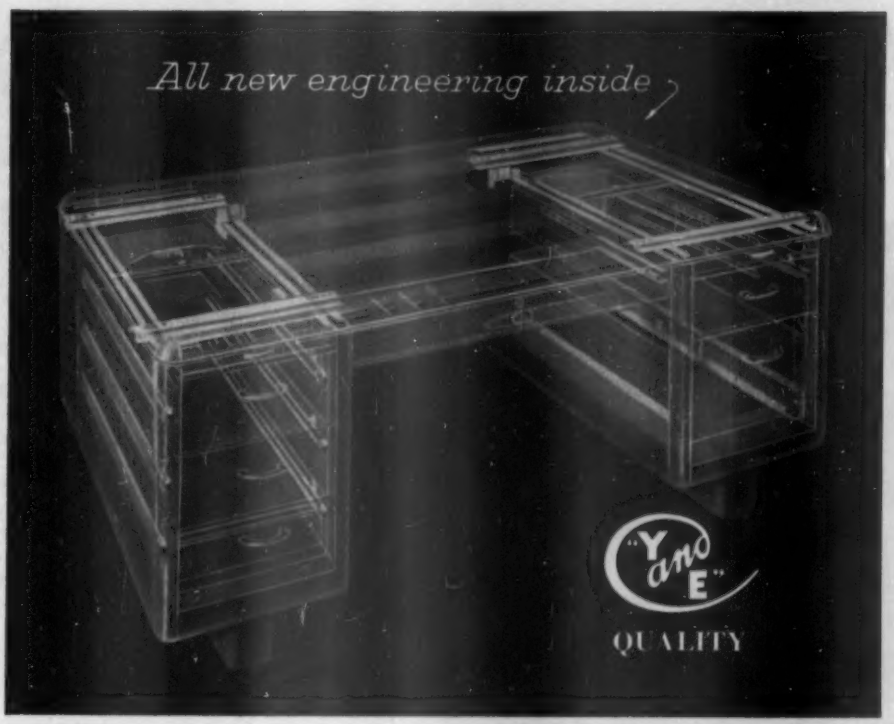
Polyethylene's main stamping ground right now is the supermarket produce counter. The case of the missing carrot tops is an example of the rapid changes in buying habits brought about by polyethylene and its fellows.

Until a few years ago, carrots were shipped with their green tops still proudly waving. Farmers, produce companies, and grocers all knew that if you cut the tops off, the carrots would dry out. A dried-out carrot, which tastes something like balsa wood, is not very salable.

Unfortunately, there were two disadvantages to this way of doing things. First, the green tops added weight and hence boosted shipping costs. Second, as nutrition experts found out, the green tops steadily drained nutritive value out of the carrots.

The obvious solution to both problems was to pack the carrots, topless, in moistureproof bags. Polyethylene bags filled the bill exactly. Nearly all carrots shipped from major suppliers in Texas, Arizona, and California are now packaged in polyethylene.

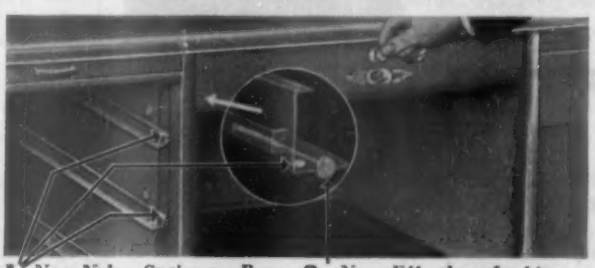
The plastic has found other jobs besides the protection of carrots. It's providing tough and good-looking packages



Here's an X-ray look into the **easiest** operating desk you can buy

This new "Y and E" desk keeps its handsome, accepted style—but 20 engineering changes make it the most adaptable, easy-to-use desk you can buy.

New ease of operation

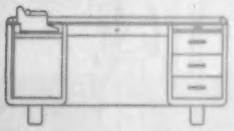


1. *New Nylon Stationary Bearings* glide drawers quietly in and out with effortless ease.

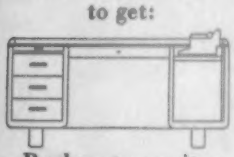
2. *New Effortless Locking*—new spring and locking mechanism give easy and positive locking and unlocking.

New Flexibility

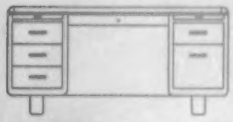
Same desk adapts for different uses



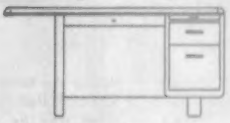
Reverse pedestal to get:



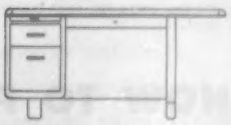
Replace typewriter pedestal with drawer pedestal to get:



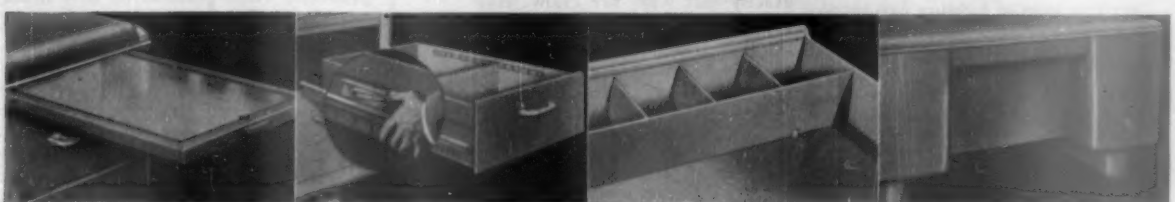
Replace pedestal with end panel to get:



Reverse pedestal and end panel to get:



You can meet many changing needs through rearrangement of original parts. By stocking a few spare parts you can quickly and easily change this new desk to almost any model.



3. *New Sliding Reference Shelf* is reversible, can be used as utility drawer. Glass insert or pin tray is available.

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6. *Choose either Recessed or Flush Back* on original equipment. Can be easily changed from one to the other at any time.

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Pictures, catalogs and sales stories are excellent ways to bring competitive lines of lighting fixtures to your attention.

But when you're ready to invest your money, *don't buy until you handle the fixtures yourself.* Don't buy until you're satisfied by your own inspection which fixture is *your* best buy.

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for candy, bakery rolls, bed sheets, silver ware, nuts and bolts. At the AMA exposition, Visking Corp.'s Plastic Div. even went so far as to package a 1954 Buick in polyethylene.

• **Combinations**—While the new flexible materials have a lot to offer on their own, they can do still more in combination. Polyethylene is being laminated to cellophane. Papers are getting all kinds of plastic coatings. Metallic foil is being bonded to all other materials. Here are two new items that show promise:

• Chester Packaging Products Corp. has a new cellophane-polyethylene combination. Product name and sales message are printed in reverse on the cellophane, and then polyethylene is extruded over the printing.

• Riegel Paper Co. has a new triple-barreled material. It starts with a strong type of paper. Metallic foil is bonded on the inside, polyethylene on the outside. A package made of this material is said to be almost comparable to the tin can in moisture and vapor resistance.

III. New Machines

"The machines are finally catching up with the materials." That's how one engineer described the new equipment on display at the AMA show. The eye catchers were those designed specifically for flexible materials. Bartelt Engineering Co., Stokes & Smith Co. (Division of Food Machinery & Chemical Corp.), and Transwrap Div. of Package Machinery Co. all showed units that were complete packaging lines in themselves.

Each of these machines started with a roll of film, made a package, filled it, sealed it. Some of them even put the packages into cartons. What's more, the equipment is easy to operate.

• **Developments**—Speed and simplicity are the two big features of all the new packaging equipment. There have also been some developments along other lines. Here are some of the most recent ones:

• Pressure filling of Aerosol-packed products, made possible by new filling machines offered this year, opens up new fields for this type of package.

• McKay-Davis Chemical Corp. has a machine designed for packaging irregularly shaped objects such as tooth brushes, combs, and surgical instruments in close-fitting, minimum-sized packages. The machine works with practically any heat-sealable flexible material.

• Standard Packaging Corp. is pushing hard on its controlled-atmosphere filling machine. It's small and fast. Now used primarily for vacuum packing, it can be converted for packaging certain foods in inert gas to increase their shelf life.

SO MANY IMPORTANT USES—WE DON'T KNOW THEM ALL!

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If any one part of the vastly complex process of steel production can be called the heart, it is the open hearth furnace operation—because it is here that the raw materials are brought together and finally made into steel.

This painting by Peter Helck shows two of National's 30 open hearth furnaces . . . all much larger than average, and almost one-half with a capacity of 550 tons per heat—the world's largest.

In the foreground, the charging machine operator is placing a carefully measured quantity of scrap steel and limestone on the furnace floor. Next molten pig iron will be poured in from a ladle, as shown in the background. Other material will be added from time to time in the melting process during which intense heat is sustained by flames from oil jets playing over the "bath" in a continuous draught of hot air.

As the steel is refined in these mighty ovens, it is checked and analyzed to assure a finished product of highest quality and in exact accord with specifications.

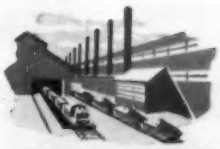
After 13 to 15 hours, on the average, the new steel is tapped into ladles, then molded into ingots—the solid form from which it is processed into one of the endless variety of steel products.

National is the leading developer of the ultra-large open hearth furnace . . . in this respect as in so many others, maintaining its reputation as one of America's most progressive producers of steel.

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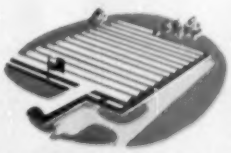
HANNA IRON ORE COMPANY
Cleveland, Ohio. Producer of iron ore from extensive holdings in the Great Lakes area.



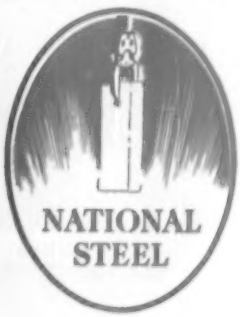
THE HANNA FURNACE CORP.
Buffalo, New York. Blast furnace division for production of various types of pig iron.

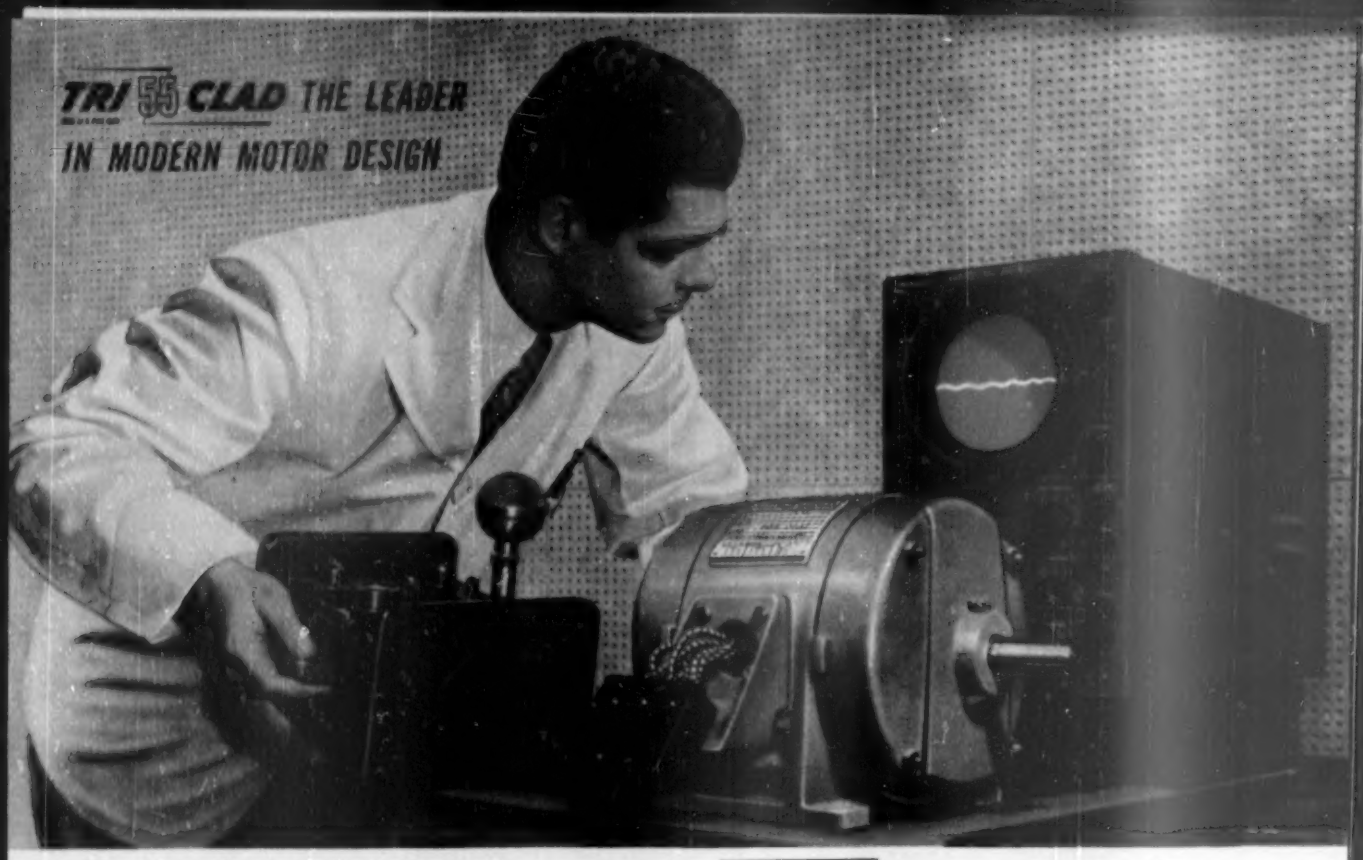


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Sound-room tests prove TRI 55 CLAD motors operate at greatly reduced noise level!

Here's the new motor that will help solve the problem of industrial machinery noise. It's the quieter, more compact G-E Tri/Clad '55' motor, in ratings from 1 to 30 hp a-c.

To reduce noise, G. E. engineers developed a new concept—a sonant motor—a motor that sounds pleasing to the ear. They studied, and then reduced, the causes of motor noise—bearing rattle, magnetic hum, and windage. Sound room tests prove the Tri/Clad '55' is sonant, runs quieter.

In addition, the modern looking Tri/Clad '55' motor is lighter and smaller—saves weight, saves space.

Try this new motor. See for yourself how the Tri/Clad '55' can help reduce noise and save space in your own equipment. Contact your G-E Apparatus Sales Office or G-E Motor Supplier today. For bulletins, write General Electric Co., Section 648-12, Schenectady 5, New York.

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LIGHTER, SMALLER



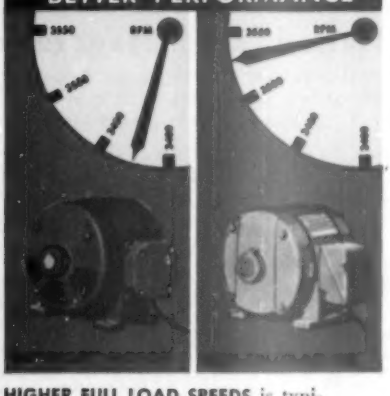
MORE COMPACT MOTOR means more horsepower per pound—saves space, weight—is easier to handle.

BETTER INSULATION SYSTEM



SILICONE RESIN COATING on stator plus stronger polyester-film slot and phase insulation increase electrical life.

BETTER PERFORMANCE



HIGHER FULL LOAD SPEEDS is typical of many performance improvements in the new Tri/Clad '55' motor.

Midget Lab . . .

. . . at Farrel-Birmingham allows potential customers to try out new processes without interrupting home plants.

Several years ago, a New England manufacturer of heavy equipment dreamed up a new way to get a foot in the customer's door. He set up a small process-testing laboratory and invited research people in the rubber and plastics industries to use it for trying out new ideas for their home plants. The idea worked; the lab got bigger, finally burst its buttons. Last week, Farrel-Birmingham Co., Inc., of Ansonia, Conn., announced that it would open a brand new lab, three times the size of the old one.

Farrel-Birmingham makes many types of machines for the rubber and plastics industries. Among them:

Mixers that blend crude rubber or plastic with basic ingredients into a stiff, workable mass.

Extruders that take the rubber (or plastic) from a mixer, shape it, and stack it.

Calenders that roll out strips of plastic film for shower curtains, upholstery materials, and tablecloths.

• **Two in One**—The new lab is really two labs in one. There is a miniature set of equipment that takes a couple of pounds of raw material at a time, puts it through the processes that turn it into sample pieces of film or sheet.

Then there is a set of full-scale equipment to handle the raw material in 100-lb. batches.

• **The Benefits**—The Farrel-Birmingham idea makes good sense for companies in the market for such equipment. Take a manufacturer of wire insulators, for example. One mixer and one extruder probably take care of his production requirements. He doesn't want to invest $70,000 to $80,000 for new equipment that will be used only occasionally for experimenting with new types of insulation. On the other hand, he doesn't like to break into his production schedule to test out those new types, because that slows him down. Instead, he can send a couple of researchers off to Ansonia for a few days, let them do their experimenting in the Farrel-Birmingham lab.

The same holds for the big tire manufacturer. Maybe he has three or four sets of processing equipment, but likes to keep them going full blast. For him, it pays to let the equipment manufacturer do the investing.

Farrel-Birmingham gets a chance to show off its latest equipment and build good will with its customers.



"Well, General Wirebound Containers cut shipping cost so much we can afford to put more into the product"

The money you save with General Wirebounds won't always show up as spectacularly as this. But the savings you *will* get can be a better friend than diamonds—to a businessman.

Why not see what our packaging laboratories can do for *your* shipping operation? Have one of our engineers call. There's no obligation. And send for your free copy of "The General Box." It's loaded with money-saving ideas.

ENGINEERED CONTAINERS FOR EVERY SHIPPING NEED

Factories: Cincinnati; Denville, N. J.; East St. Louis; Detroit; Kansas City; Louisville; Milwaukee; Prescott, Ark.; Sheboygan; Winchendon, Mass.; General Box Company of Mississippi, Meridian, Miss.; Continental Box Company, Inc., Houston.

General Box

GENERAL BOX COMPANY, 1805 MINER STREET, DES PLAINES, ILL.

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MISSOURI DIVISION OF RESOURCES & DEVELOPMENT
Dept. D-46 Jefferson City, Missouri



TWO YEARS AGO weeds and dust were taking over the long narrow buildings of this abandoned Alcoa plant at Torrance, Calif. Douglas Aircraft bought it in desperation.

What It Takes to Turn

Little kinship is apparent between the abandoned hulk of an aluminum plant on the left and the spang-new aircraft plant on the right. Indeed, there isn't much kinship—except that they are one and the same thing.

Douglas Aircraft Co., desperate for space, passed the miracle that turned a weed-grown, rusting Alcoa wartime plant at Torrance, Calif., into a really tailor-made assembly line for Navy planes.

It all started two years ago when Douglas, and the Navy, started a hunt for more plant space. The existing Douglas facilities were bursting at the seams with a stepped-up assembly line for AD attack planes. Pretty nearly every part had been farmed out to subcontractors, but there still was too little space. On top of that, Douglas engineers were already poring over blueprints for the F-4D Skyray fighter, which was scheduled to go into production soon.

• **Reluctant**—At the time, the government was chary of letting defense funds be used for brick and mortar. Douglas and the Navy tried to go along, but finally had to ask for permission to build at Denver. No O.K. came from Washington, until too late for Douglas to meet its deadline; by that time every leftover airplane plant in the nation had been snapped up.

Douglas was ready to take anything with a roof and four walls, provided it was somewhere near its plant at El





POTLINE buildings (upper) are too narrow for aircraft assembly lines. So Douglas roofed over the air space between the buildings, using old sidings for new roofs.



PRODUCTION LINES are humming. By massive conversion job, Douglas got an extra efficient plant, saved 40% in costs, year and a half in time over a new plant.

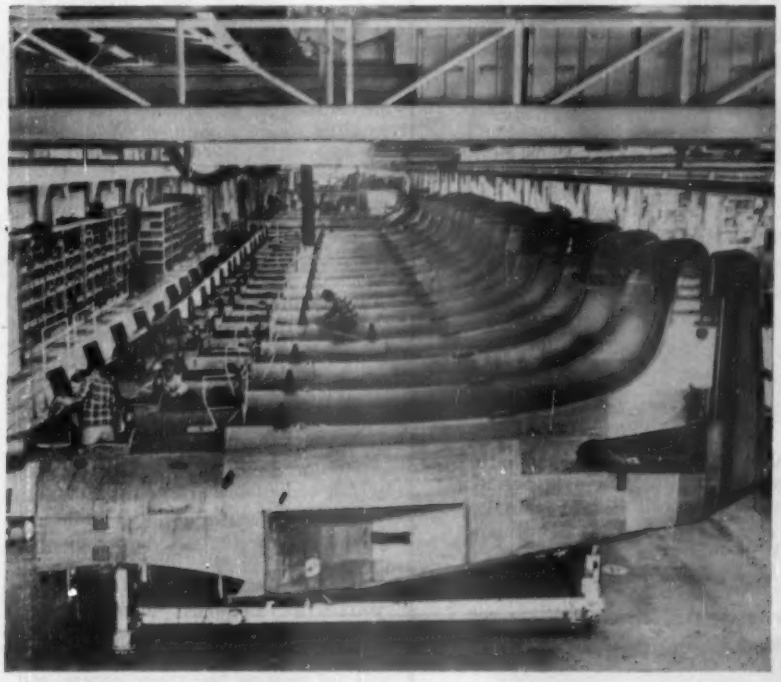
Potline into Plane Plant

Segundo. Four walls and a roof were just about what it got, when works manager R. A. Myers left the dusty road at Torrance and pushed through the tall weeds into the old Alcoa buildings. What he found was an aircraft maker's nightmare. Potline buildings are long and narrow, spaced far apart to let the heat of the operation dissipate. But, with the deadline wolf scratching at the door, Douglas and the Navy bought the plant.

Conversion started with a rush. It had one advantage: The factory supervisors were able to work right along with the plant layout men. Together, they were able to place machines and arrange line sequences exactly to suit the operations men. And all hands got invaluable experience in plant conversion problems. The general principles they learned may even provide the handbook for future conversions in other industries.

• **Bigger, Faster**—Last week, Douglas was still putting the finishing touches on the final step: the conversion of an odd-sized building formerly used to service transformers into a six-story storehouse for records. Actually, though, aircraft assembly has been going on for months. Radical solutions have enabled Douglas to transmute the old 600,000 sq. ft. of floor space into 1.3-million sq. ft. The whole setup has cost 40% less than a comparable new plant, and has saved a year and a half.

The old potline buildings were the



SUBASSEMBLIES roll down the broad aisles that once were just outdoors. The space of the old potline buildings is used for storage and work space.



LOW COST MOBILE WAREHOUSES

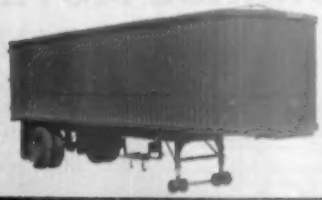
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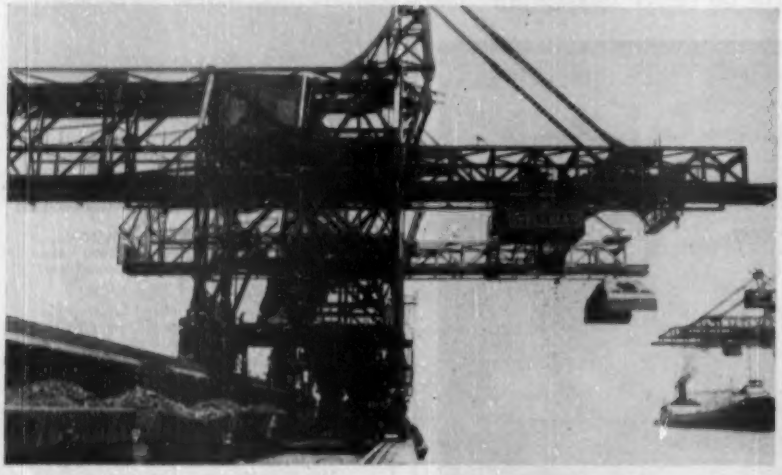
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MECHANICAL GAS PRODUCERS
"ANKER-HOLTH" AIR AND HYDRAULIC CYLINDERS

real challenge to the engineers, and the ones that got the most unorthodox solution. There were 10 of these long and narrow structures, spaced 54 ft. apart. Douglas had the bright idea of roofing over the airspaces. The old buildings were rugged, so no new roof supports were needed. As an added touch of ingenuity, the steel of the old sidings was put back to work in the new roofs.

In the new setup, the assembly lines operate in what used to be the outdoors; the old narrow covered areas provide storage and working space.

• **Holes Put to Work**—Another saving was turned up in three other buildings, which covered huge rubble-strewn holes that had once held the furnaces for baking carbon anodes. The first idea was to fill in the holes and level off the floors. Then someone with a sharp pencil figured out that at the same cost the rubble could be cleared out and ceilings put over the holes. The profit: a series of useful basements, at no extra cost.

With the big problems solved, Douglas found it a cinch to give the old Alcoa buildings the spruced-up comforts and looks that go with the modern aircraft plant. Small wings were tacked onto the main buildings to house elevators, stairways, and restrooms. That way, the engineers could use the three main floors for offices without having to chop up the insides of the structures.

Today, Torrance is a main cog in the whole Douglas operation. Parts made there are shipped out for assembly at sub plants in California and Nevada. The parts come back as completed shell-like sections of wings and bodies. Torrance then stuffs the shells with complicated machinery, wiring, and hydraulic piping. As a last step, the sections are shipped the 10 miles to El Segundo, where they are assembled into finished aircraft.

Reverse Jet Thrust Slows Landing Plane

Right from the start, jet plane makers have had trouble getting the big birds out of the sky. A jet comes down so much faster than a propeller-driven plane that it needs a much longer runway to land, particularly in wet weather.

This week a Boeing Airplane Co. official said that his company was close to perfecting a device that makes it almost as easy to land a jet as a propeller-driven plane. At the national aeronautic meeting of the Society of Automotive Engineers in New York, Joseph Sutter, Boeing's group engineer for aerodynamics, said the new device will not increase fuel consumption, and that it can be adapted to a wide variety of engine installations. The Boeing Co.'s

device is said to have built-in safety, since it cannot operate above a certain air speed. Thus in flight it could not suddenly go into action, sending the plane into a plunge.

Boeing calls it a reverse thrust system. It works like this: When a plane touches down on a runway, the pilot flips a switch. This opens a clamshell-shaped scoop at the exhaust end of each jet. When the scoops are open, the pushing action of each exhaust is deflected; some of it bounces back toward the front end of the plane. This gives the plane a reverse thrust. It's as if you reversed the rotation of the propellers on a conventional plane.

Boeing says that it is planning to use the system on production versions of its Model 707 jet transport. If it is successful there, it is likely to be used on B-47s and B-52s.

PRODUCTION BRIEFS

Atomic power for industry will be studied by three more companies under the auspices of the Atomic Energy Commission . . . Bendix Aviation Corp. will consider the possibility of atomic plants small enough to be carried on railroad cars . . . Babcock & Wilcox will scan the practical engineering, technical, and economic aspects of atomic power. . . . American Machine & Foundry Co. will study the equipment needs of industrial nuclear power plants.

■

Kaiser Motors Corp. got together last week with Textron, Inc., a cotton and synthetic cloth manufacturer, to set up a joint company, Textronics, Inc. The new company will make aluminum and stainless steel equipment for use at low temperatures.

■

Design is your business is a booklet put out this week by the Small Business Administration. It analyzes such aspects of design as production, selling, coordination, and the appraisal of consultants. You can get a copy for 25¢ from the U.S. Government Printing Office, Washington, D.C.

■

Contract switch: Budd Co. will make the bodies of Ford's new plastic sports car, the Thunderbird, instead of Murray Corp. of America, as originally planned. Budd is dickering to buy or lease some Murray facilities in Detroit. A week ago, Willys said it was pulling its body-making operations out of Murray (BW—Apr.10'54,p32).

■

Magnesia refractories, about 97% pure and weighing several hundred pounds, can now be produced in quantity, says Electro Refractories & Abrasives Corp., Buffalo.

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Labor-Saving Facilities to Speed Shipping

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Typical of the many fine facilities is the bulk loading conveyor which will load and trim bulk cargoes at a rate of better than 500 tons per hour. Used in conjunction with an electric vibrator car shake-out, the loader makes quick work of cargoes such as iron ore, coke, coal, potash, sulphur, salt, gravel and cement.

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NEW PRODUCTS



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B. F. Goodrich Co. feels the air hose above, made of rubber reinforced with wire braid, is all but indestructible. To prove it, it filled the hose with air to a pressure of 400 lb. per sq. in., then put it on a railroad track in the path of a freight car. According to Goodrich, the car wheels failed to cut or distort the hose; it retained full pressure.

The same piece of hose stood up under a burst test in the laboratory at 4,300 psi. When it finally burst at a higher pressure, the weak spot was not the part the wheels had run over.

Goodrich says the hose should give rugged service in mines, quarries, and industrial uses.

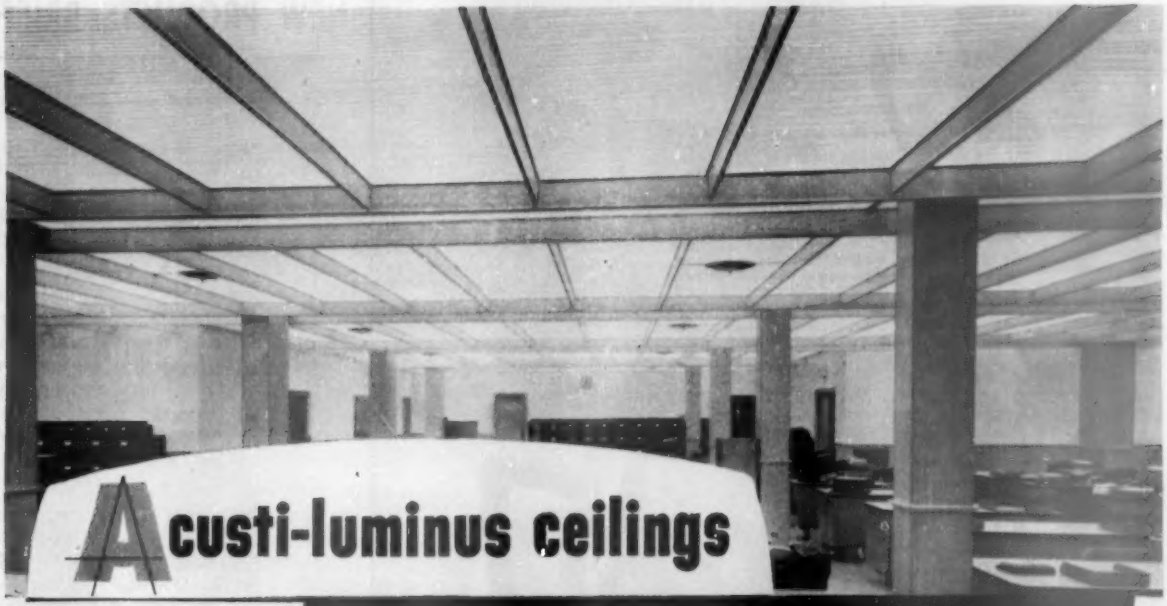
• *Source: B. F. Goodrich Co., Akron, Ohio.*



Neoprene Bumper

A supermarket near Los Angeles is using the shock-absorbing du Pont neoprene bumper above to protect its loading dock. Everguard Co., manufacturer of the bumper, says it has an edge over ordinary rubber because neoprene stands up better in rain and hot sun, won't deteriorate so fast when it's exposed to oils, acids, and various other chemicals.

• *Source: Everguard Co., P. O. 143, Newport Beach, Calif.*



Acusti-luminus ceilings

ABOVE—new general offices of the DORMEYER CORP., Chicago. This space was formerly an old loft cluttered with beams, pipes, ducts, and sprinklers. Now all these are hidden by the Acusti-Luminus Ceiling.

make an office look better... help employees work better!

INSTALLED BY LEADING FIRMS COAST TO COAST!

Here are a few of over 2800 installations in 37 states—in factories, offices, drafting rooms, critical work areas, stores, banks, schools, libraries, utilities, and public buildings:

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Douglas Aircraft Co., Inc.
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General Motors Corp.
National Broadcasting Co.
Republic Aviation Corp.
Trans World Airlines, Inc.
Union Carbide and Carbon Corp.
Zellerbach Paper Company

You can give your office the "new look" that means *new efficiency*—by installing a modern Acusti-Luminus Ceiling!

Increases employee efficiency two ways! Its superior *lighting* and excellent *soundproofing* do wonders to help employees get more work done—in less time—with fewer errors!

First, it's superior to daylight! Light is evenly diffused by lightweight, corrugated sheets of Lumi-Plastic. There is *no shadow—no glare!* It provides a source of low brightness—of any intensity.

Second, it reduces noise! Soundproofing is achieved by means of noise-absorbing Acusti-Louvers which may be hung at intervals below the Lumi-Plastic.

The result: BETTER WORK! In its quiet "luminous environment" employees see better, feel better, and do a better job. Case studies reveal that employees working under Acusti-Luminus Ceilings get fewer headaches from eyestrain, show less fatigue, take less time off, and have more enthusiasm for their work.

It's the newest trend in lighting! This solid "ceiling of light" gives clean, modern lines to old ceilings. Hides pipes, ducts, cracks, and other eyesores. Labelled by Underwriters' Laboratories for installation *under* existing sprinkler systems. So a growing number of business firms are using this multi-purpose ceiling for modernization—as well as for new construction.

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Thousands of products that only recently seemed incapable of improvement are today more salable because their manufacturers found new ideas to express in Durez phenolic plastics. Notable instances are the newest Landers, Frary and Clark 8- and 10-cup coffee percolators with their handsome, clean-lined contrasts of metal and plastic.

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MOLDING COMPOUNDS. Structural, electrical, and chemical properties in many combinations.



RESINS FOR INDUSTRY. Bonding, casting, coating, laminating, impregnating, and shell molding.

NEW PRODUCTS BRIEFS

A new fiberboard roof deck, developed by Armstrong Cork Co., Lancaster, Pa., provides insulation, water resistance, and interior finish—all in one material. It is designed to save the builder time, since it sheds water, thus permitting him to resume work right after a rain.

•

To protect flowers in coolers and storage rooms, Conner Engineering Corp., Danbury, Conn., has introduced a small refrigerator air purifier. The unit pulls in air from the storage area, removes airborne gases and vapors—using brominated carbon to do this job—then forces the air back into the room again.

•

A liquid dry cleaner in a spray-type container has been put on the market by Pro-Fesh Products, Inc., 225 W. 34th St., New York. It costs $1 for a 5-oz. can, is said to be noninflammable.

•

A new type fluorescent lamp, said to produce 35% more light than any previous light source, was announced last week by General Electric Co., Nela Park, Cleveland 12, Ohio.

•

A hand cream to protect workers against such hazards as dermatitis was introduced last week by Ayerst Laboratories, Inc., 22 E. 40th St., New York.

•

Truck tires are getting flatter: From Akron, Ohio, last week came similar announcements from two major rubber manufacturers. . . . Goodyear Tire & Rubber Co. said that its new truck tire, the Traction Hi-Miler, is flatter, puts more rubber on the road. This, says the company, can mean up to 47% more tread life. And a new tread arrangement seeks to increase skid-resistance. . . . Seiberling Rubber Co.'s new Highway 110, also for trucks, has a similar tread design, also aims at longer tread-life by making the surface flatter.

•

An air conditioner-heater combination for homes will be introduced next month by the Worthington Corp., Harrison, N. J.

•

Shhh! Gamblers at work! A gambling hideaway near Wilders, Ky., has treated its ceilings with vermiculite acoustical plastic to deaden the rattle and clacking of the dice.

•

World's smallest radio: Emerson Radio & Phonograph Corp., New York, claims that its new 7½-oz. pocket model is the smallest yet. It fits into the palm of your hand or your vest pocket.



Suppose the government forbade food chains to abandon unprofitable stores

During the past decade, the rise of the super-market and the shopping center has made advisable the abandonment of many no-longer profitable small store locations—moves which could freely be taken by chain store management in the best interests of stockholders, employees and customers.

There are few people who fail to see this as a sound and justifiable business practice—or who would expect the Government to intervene to forbid it. In fact, if it did so intervene, the large food chains, for example, could no longer afford to sell such high quality food products at such low prices.

While other businesses are free to make such moves as this, the railroads—under similar circumstances—generally are not free to do so. In many instances, before a railroad can discontinue a passenger train that no longer pays for itself, it must obtain permission from the regulatory body of the state or states in which the operation is conducted.

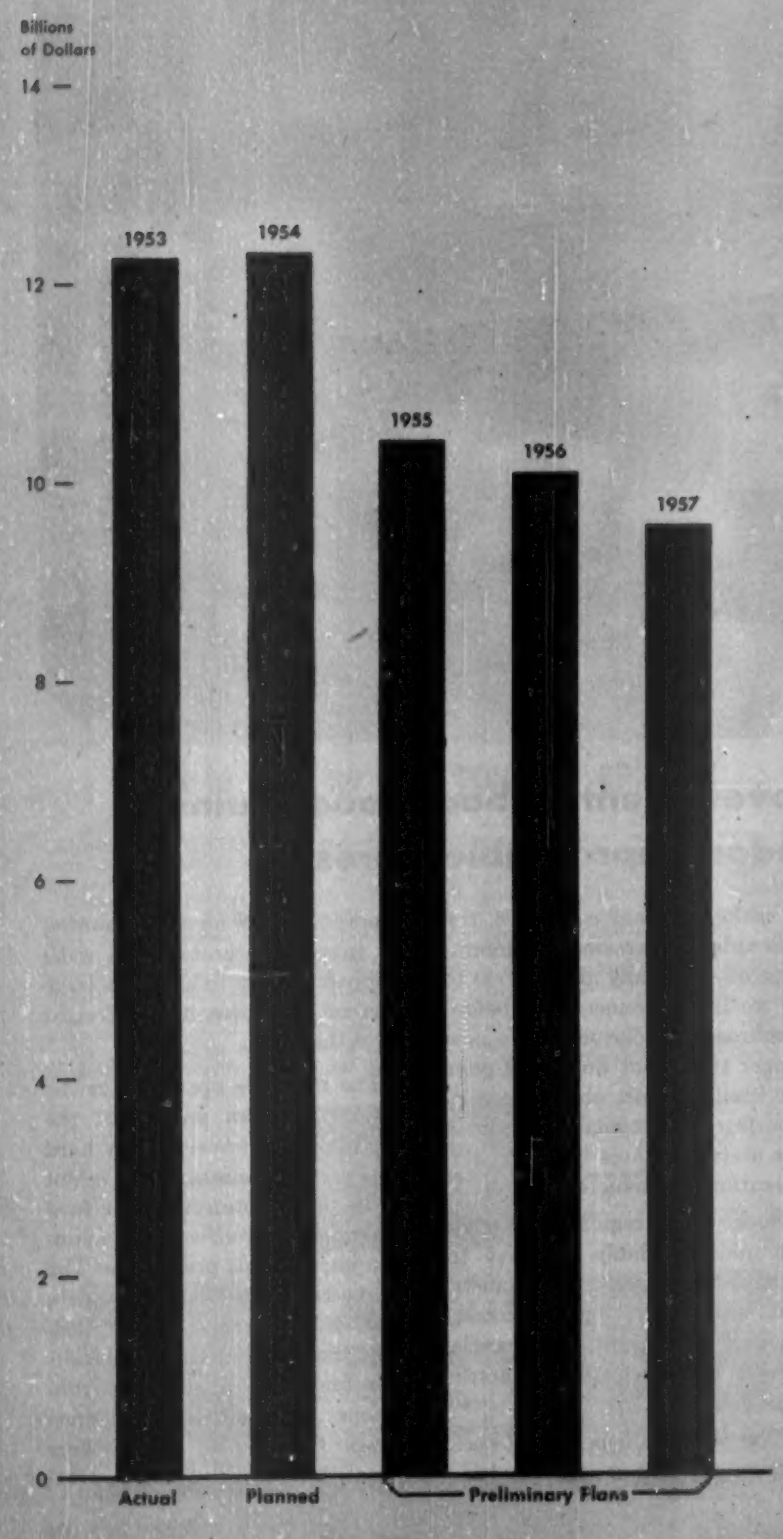
Such state regulatory bodies are understandably sensitive to local pressures. As a result, justified applications for discontinuance of service are frequently denied or subjected to inordinate delay.

The railroads believe that such unprofitable and unnecessary local operations place an unjust burden on interstate commerce, with shippers having to absorb a large part of the losses in the freight rates they pay.

The railroads operating in the crowded eastern section of the United States are especially hard hit by such operations. It is not in the public interest for the food chains—*or the railroads*—to maintain unprofitable operations. The railroads do not ask for complete relief from regulation—they ask only that regulation be brought into line with present-day conditions... Eastern Railroad Presidents Conference, 143 Liberty Street, New York 6, N. Y.

How Industry Plans Capital Spending

(All Manufacturing)



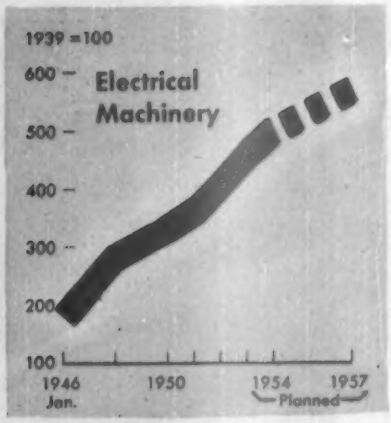
Data: McGraw-Hill Economics Dept. Dept. of Commerce

© BUSINESS WEEK

This Year Shows

No Drop . . .

. . . And Manufacturing Keeps on Building New Capacity

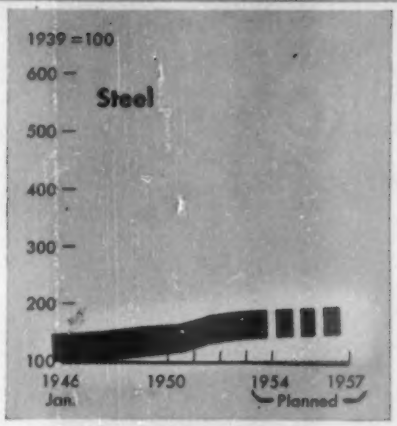


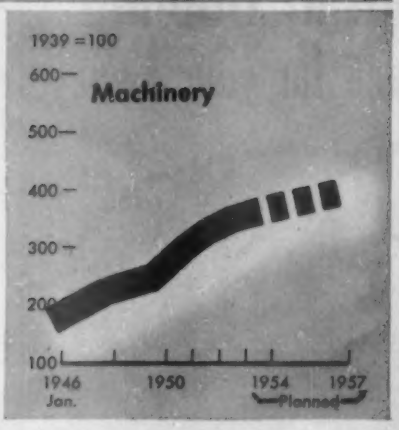
Raising

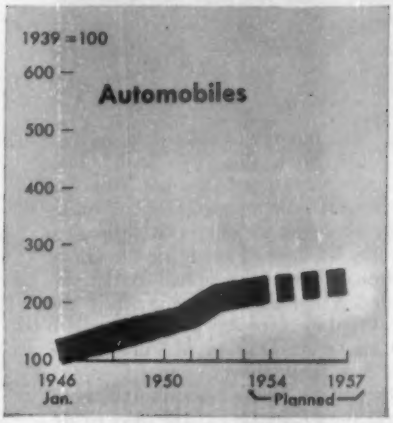
The charts on these pages reveal confidence on the part of American businessmen—and particularly manufacturers—in their investment plans for 1954. Far from being dismayed by the decline to date or disturbed by gloomy talk about a further drop in business, they're actually adding to their spending plans in order to increase productive capacity.

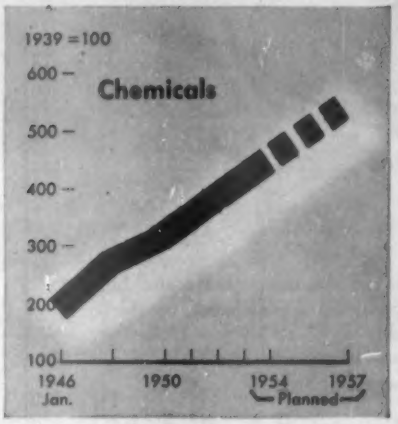
This confidence shows up clearly in McGraw-Hill's seventh annual survey of the plans of business for new plant and equipment. In the preliminary report made by McGraw-Hill last fall (BW – Nov.7'53,p27), manufacturers figured to spend about 8% less this year than they did in 1953. Now, they have raised their sights and are aiming to equal or exceed the $12.2-billion that made last year the biggest ever for investment outlays in manufacturing.

• **No Routine Shift**—Going on the experience of previous surveys, you might expect a routine rise between tentative plans made in the fall and those reported in the new year, when plans firm up and outlays have already begun.









the Sights for 1954

But the new boost in manufacturing plans, especially with the economic decline still on, is more than merely routine. It is a real demonstration of business confidence.

Only last month the Commerce Dept. report on capital spending plans forecast a 4% over-all decline from 1953's high level (BW—Mar.20'54, p26). McGraw-Hill's survey also shows a 4% decline for all industry, but the Commerce categories are more extensive than McGraw-Hill's, so the two are not strictly comparable. Where they do coincide in coverage—in the all-important manufacturing field—Commerce showed a 7% decline from 1953.

This means that if the upward shift in manufacturing recorded by McGraw-Hill is accurate, and the Commerce estimates in other categories hold good, capital spending for all industry in 1954 will show practically no change from the over-all total of $28.3-billion spent last year.

The 7% discrepancy in the manufacturing category between the surveys made by McGraw-Hill and Commerce is big enough to raise eyebrows. Last year the two forecasts were less than 1% apart.

As both surveys report what businessmen tell them, it's hard to see reasons for the difference. Between them, however, there are three that are important: (1) The McGraw-Hill survey covers primarily the larger companies where plans may be firmer than in small, (2) there's continuing and perhaps increasing confidence among businessmen generally, and (3) there's growing recognition of hotter competition ahead.

• **The Snapback**—These are the only logical explanations. Businessmen apparently experienced a slight sagging in confidence when the slide began last summer. As the months rolled on, they remained hesitant, fearing, perhaps, that the decline would snowball. When it didn't, their plans started firming up. They're evidently convinced that there will be no real trouble this year, and their confidence has firmed up. The plans for increased spending, of course, will tend to prop up the economy.

One place the confidence is quite noticeable is in the oil industry. Last

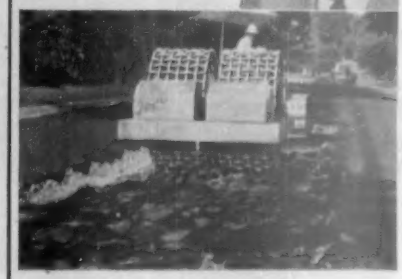
"Best machine made for

SALVAGING BLACK TOP"

says

Ben Harrison, Manager,
Petroleum Sales Co., Fresno, Cal.
(Division of Fortier Transportation)





New Method Helps Rebuild and Maintain Roads and Streets... At Lower Cost

Reclaiming the material in this 20-year-old black top street would be a tough job for most equipment. A Hyster® Grid Roller reduced the scarified black top to original aggregate size in just 5 passes per section. *All* of the old road surface, including all of the live oil remaining in the aggregate, was salvaged for re-use in the new road.

The Grid Roller was also used to compact the base and roll the new surface, thereby reducing the amount of equipment needed on the job.

Said Ben Harrison, Manager of Petroleum Sales Co., Fresno, Calif. contractor, "The Hyster Grid Roller is the best machine we have ever found for pulverizing and laying down bituminous pavement."

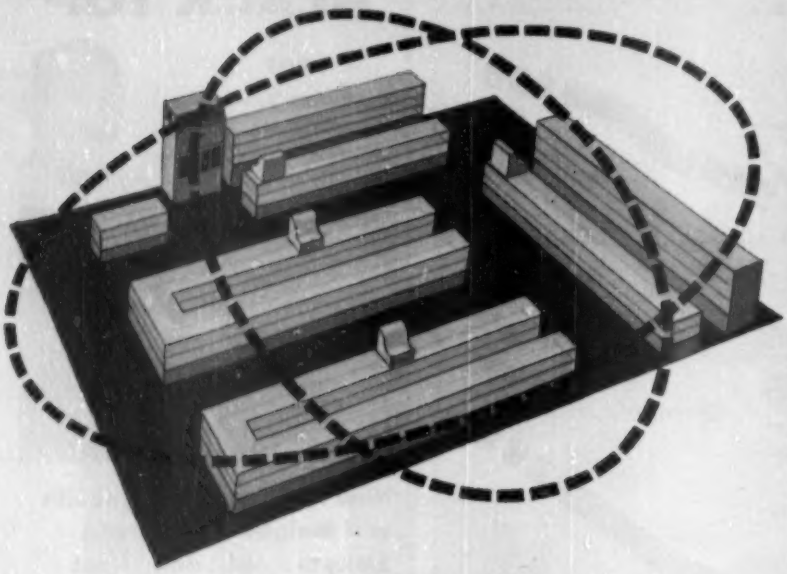
See for Yourself how road maintenance dollars can be stretched. Ask your Caterpillar®-Hyster Dealer to show you "The Grid Roller Method", filmed on actual road maintenance jobs, or write for details to Hyster Co.: 2907 N. E. Clackamas Street, Portland 8, Oregon; 1807 N. Adams Street, Peoria 1, Illinois.

HYSTER COMPANY

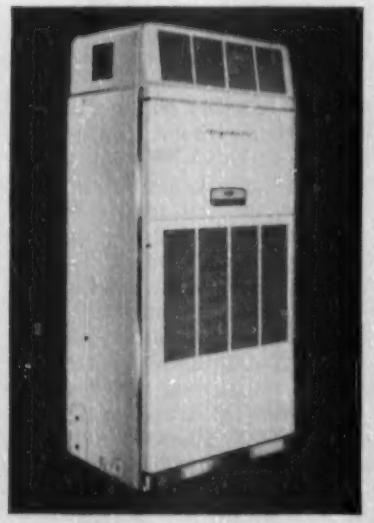
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How Oil Industry Plans Its Spending

ACTUAL 1953

	Percent of Total	Billions of Dollars
Drilling and Production	52	2.2
Refining	25	1.1
Transportation	11	0.5
Marketing	12	0.5

PLANS 1954

	Percent of Total	Billions of Dollars	Percent Change
Drilling and Production	50	2.3	+ 4
Refining	28	1.3	+21
Transportation	7	0.3	−31
Marketing	12	0.5	+ 8
Other	3	0.1	

Data: McGraw-Hill Economics Dept., Frederick C. Coqueron; Chase National Bank; NATIONAL PETROLEUM NEWS.

BUSINESS WEEK

fall, preliminary estimates forecast a 2% drop from the 1953 level. This was not unexpected, for last year was the biggest ever for capital spending by the petroleum industry. According to Frederick G. Coquereron, of the Chase National Bank, the actual outlay exceeded $4.2-billion in 1953. But the latest figures compiled by McGraw-Hill call for an 8% rise to $4.5-billion this year (see table above).

The snapback isn't unanimous, however. Some companies still plan to decrease spending this year. And, of course, an intention to spend is not the same thing as an actual outlay. But if past reports mean anything, the plans businessmen make are as a rule a remarkably good guide to their actions.

More often than not they've exceeded their estimates, especially during the post-Korea boom. One reason for this is that costs have risen faster than anticipated. It may be that they're overestimating costs this year, but this won't mean a drastic change in total expenditures.

The only thing that may cause a big upset is a really sudden and severe downturn in general business. If that occurs, there's no doubt that spending will be cut back sharply, maybe as much as 50% from the announced plans. But a minor decline won't cause much change. That's especially true of big companies, which have been adding to their plans in the face of the present decline.

• **The Big Ones**—As a matter of fact, the upward revision is almost entirely due to the hefty hike in the spending plans of big companies. These firms are given more weight in the McGraw-Hill survey than in the sample taken by Commerce. That helps to explain



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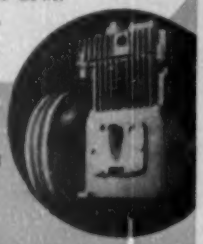
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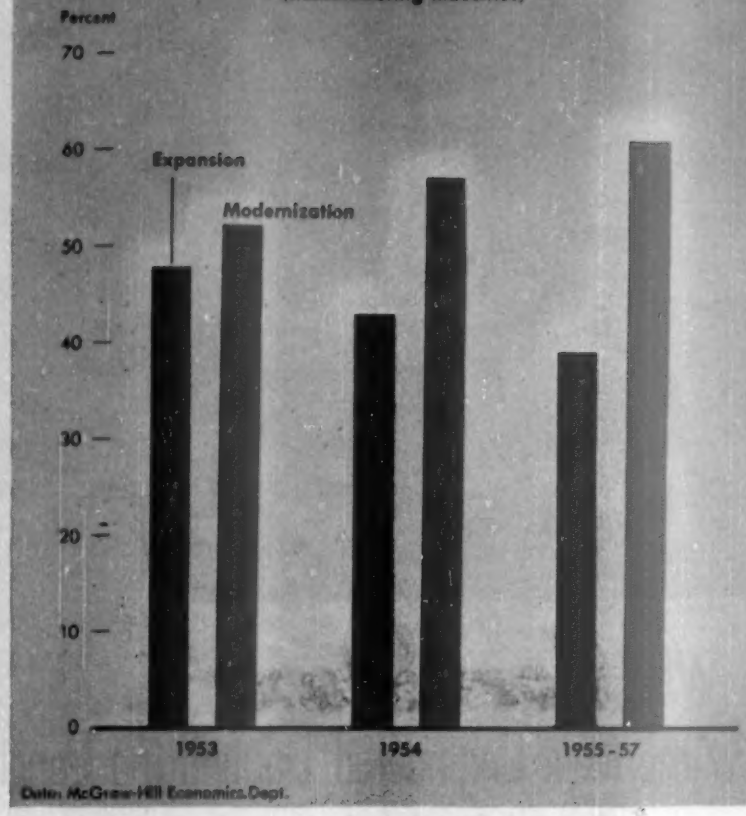
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More and More, Industry Will Emphasize Modernization

(Manufacturing Industries)



Data: McGraw-Hill Economics Dept.

the pronounced rise. According to McGraw-Hill, large companies, in both hard and softgoods lines, are planning to increase their spending levels over last year.

Leading the parade in increasing expenditures is the auto industry (chart, page 105). It plans a fat 29% increase, with the biggest portion being spent by giants like General Motors and Chrysler. Larger firms in industries like petroleum, electrical machinery, and food are following suit. In most cases, the increases made by big firms more than offset the declines scheduled by the smaller companies.

• **Looking Ahead**—Big companies are confident that, despite occasional dips, our economy is in for a period of long-term economic growth. Business executives don't claim that additions to capacity this year will equal the phenomenal rate achieved during 1953 and 1952. But they don't plan on being caught short, either. They're plainly looking beyond the current letdown, gearing their plans to a rise in sales over the long haul.

Competition, as well as confidence, figures in business' plans. Take the auto industry. It knows it won't sell all the cars it can produce in 1954. But most companies are adding to capacity because they want to better their competitive position through greater efficiency and, at the same time, increase their share of the market. In addition, they don't want to be left behind when demand does turn up.

• **Fat and Lean**—Thus, auto firms seem quite willing to build extra facilities even though they won't be used right away. It's a case of building up during the lean years in order to be able to take advantage of the fat years. And they don't expect to wait too long before the fat years return.

The accent on growth is also reflected in early spending plans of business for 1955 through 1957. Industry is already planning to lay out an average of $17.5-billion a year for that period; the average for manufacturing alone will run about $10.1-billion a year. These are preliminary estimates, and may well be increased. But even if they stand pat, it will mean a sizable prop against decline. Business seems wedded to the idea of making steady increments to productive capacity.

I. Expanding vs. Modernizing

Business adds to capacity in two ways: through (1) expansion, and (2) modernization. For most of the post-World War II period, expansion took the lion's share of capital expenditures.

Spending Plans Are Very Flexible

(Range of plans for capital spending under changing business conditions)

Millions of Dollars

	Planned	Planned Annual Spending	Annual Minimum	Annual Maximum
	1954	1955-57	1954-57	
Steel	$1,139	$ 839	$ 434	$1,560
Machinery	869	705	397	954
Electrical Machinery	553	339	210	481
Automobiles	1,290	869	542	1,187
Transport Equipment (including aircraft)	143	41	30	124
Food	865	646	417	1,236
Chemicals	1,379	1,345	758	1,784
Petroleum	2,983	2,724	1,939	2,953
Textiles	317	334	245	567
Other Manufacturing	2,764	2,315	1,542	3,591
All Manufacturing	12,302	10,507	6,514	14,437

In 1952 and last year, there was an almost even split. This year, however, 57% will go for modernization, while in 1955-57 this phase of capital expenditure is likely to account for 61% of every dollar spent (table, page 108).

There's still a healthy amount of expansion going on, particularly in industries like chemicals, electrical machinery, and oil. Transportation firms, including airlines, will devote a good portion of their funds to expansion in 1954, but are switching heavily to modernization after that. Steel, which completed most of its long-range expansion during 1953, will now grow at a much slower rate.

• **Products and Costs**—By and large, the companies that are expanding most rapidly will be those with new products for consumers, or new types of machinery for civilian industry. In all other cases, replacing old plants and refurbishing machines will be in full swing.

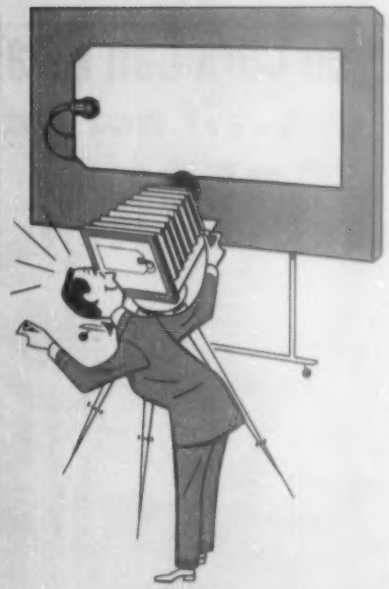
Modernization is the key to cutting costs, particularly labor costs. The big increase in investment per worker and per unit is expected to pay off by decreasing the high costs of labor. This trend is perhaps most marked in the auto industry, where automation is already well advanced. But other industries are not far behind. Chemical companies, for instance, expect to add only 16% to their work force between 1953 and 1957, although they forecast a rise in sales of 30%. Similarly, cement firms see a 9% rise in sales, only a 1% increase in labor.

Or take the case of the petroleum industry. It is spending heavily on improvements. Capacity is being increased, too, but more important, the oil industry is spending for new processes that are expected to provide more high quality products from crude oil. There have also been additions on the marketing end, as companies fight harder for customers.

II. The Competitive Race

Emphasizing modernization is natural in the slow but steady transition from a defense to a civilian economy. Modernization, with its stress on new tools that will raise productivity and lower labor costs, looms as the key factor in building up a strong competitive position. And most executives make no bones about the fact that competition is bound to increase.

• **Beating the Average**—You see this clearly in the responses of businessmen. In one industry after another, individual companies say their slice of the market will grow faster than their rivals share (table, page 110). Last year,



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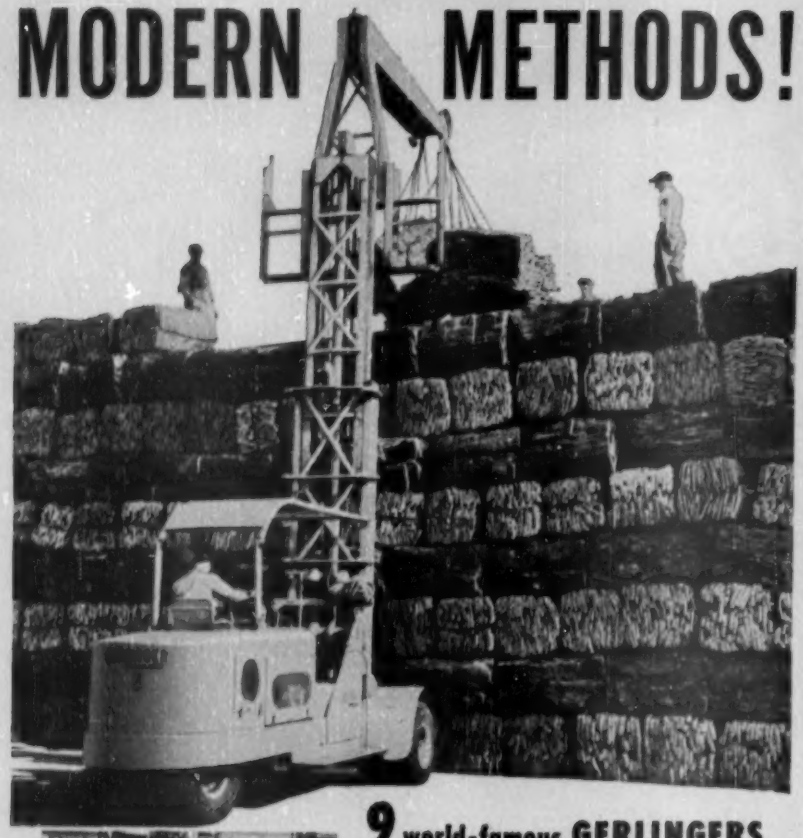
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Companies Expect to Outdo Their Industries
(Percent change in sales expectations) 1953-57

	Individual Company	Industry
Durables		
Machinery	10	2
Electrical Machinery	35	18
Automobiles	9	7
Nondurables		
Food	15	7
Chemicals	30	19
Textiles	11	4
All Manufacturing	+12	+4

© BUSINESS WEEK

manufacturers estimated that sales of their own firms would increase 13% against an industry average of 10%. This year businessmen expect manufacturing sales as a whole to increase 4%, while their individual sales jump 12% —three times the industry average.

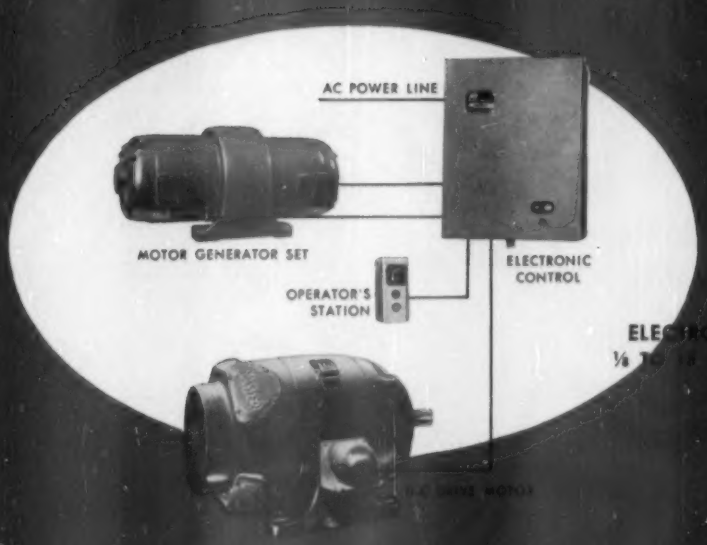
Steel is the lone case where individual companies don't plan to beat the average for the industry. Individual machinery makers think their particular sales will run five times ahead of the industry. Electrical machinery firms, which expect an industrywide sales rise of 18% over the next four years, see a 35% rise for their own companies. And the transport equipment industry, where sales are expected to drop 30%, doesn't see more than a 20% decline for individual companies.

III. Ups and Downs

The anticipation of stiff competition has pushed more and more companies into future planning. This year, more than 9 out of 10 answering McGraw-Hill's questionnaire are making some preliminary estimates for a four-year period ahead. This compares with 81% in 1953, and 65% in 1952.

At the same time, fewer companies are making detailed plans for more than the next two years. In 1952, 93% of manufacturers were planning detailed expenditures two years in advance, while last year only 63% followed this practice. This year, it is down to 56%. This is probably due to the fact that many companies have completed their major expansion plans and are waiting for new technological processes before compiling new plans in detail.

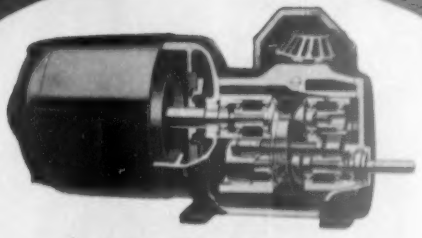
• **Wide Leeway**—But business will spend, provided that economic conditions are good. That's the one big qualification. If the economy stays on a fairly even keel, capital spending will



ELECTRONIC TYPE
⅛ TO 15 HORSEPOWER



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be at a very high level (table, page 109). A sudden upturn might bring a few more additions to plans. However, this year's program is already so big that even under ideal conditions capital spending would not be increased more than 15%. Some industries are already at their ceiling.

There's much more room to cut than to add. In fact, manufacturers say that if sales really fall, they might reduce their spending by half. That would be a huge drop. It would put capital spending in manufacturing down to $6.4-billion—not much above the pre-World War II level. But such a cut is extremely unlikely, for when considering the minimum they would spend, businessmen usually think in terms of the bottom dropping out.

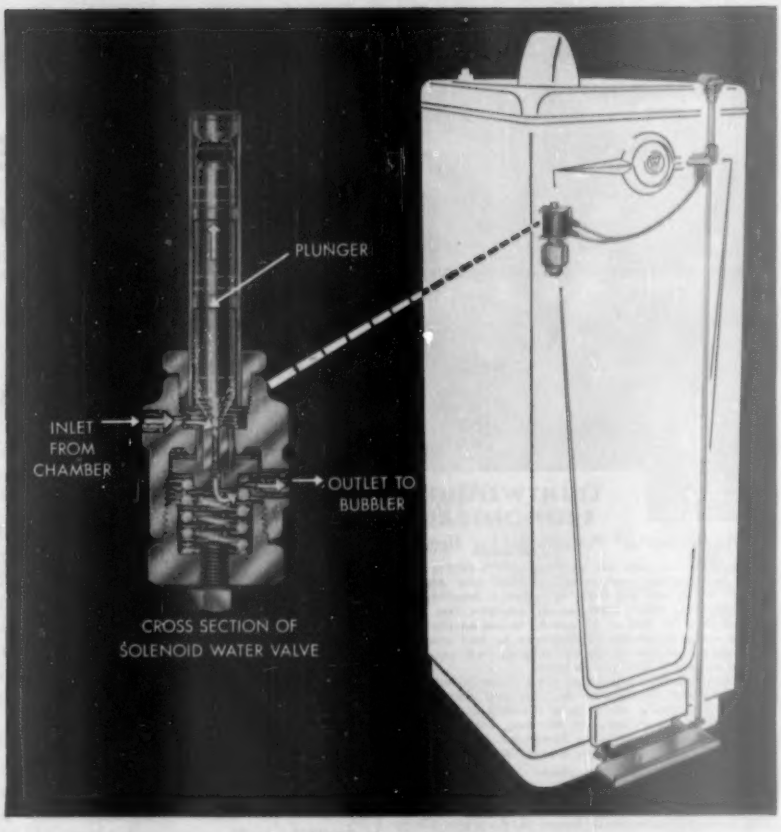
The wide leeway in 1954, especially on the downside, is not so evident in plans for 1955-57. The average amount of capital spending now planned for those years is just about halfway between the maximum and minimum estimates; the spread is, in fact, a little bigger on the upside than on the down.

• **Tax Help**—One powerful force that will help to keep capital spending high is depreciation allowances. Some 90% of all companies reinvest all their depreciation allowances in new plant and equipment. If depreciation allowances are made more liberal through changes in the tax laws, as now seems certain, some of these added funds will be used for new plant and equipment. In fact, 55% of all manufacturers said they would then increase their capital spending.

Increased depreciation allowances would mean some big changes in company financing. According to the survey, 31% of manufacturers report that they would rely less on outside funds if they had greater depreciation allowances, while 27% would reduce outstanding debt. Petroleum refiners are most interested in reducing dependence on new outside financing, while chemical and steel companies most frequently report that they would reduce outstanding debt.

Many companies would use added depreciation funds in more than one way—for instance, to reduce debt and increase capital expenditures. Others say that they would reduce debt now, increase capital spending later on. A number report that their policy would depend on economic conditions and the degree of competitive pressure in their industry, and several companies state that they would pay greater dividends.

In any case, if times did turn bad, the depreciation allowances would provide the greatest single source of industry's funds for new plant and equipment.



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GOVERNMENT

Civil Defense and the

● Contrary to people's quick reaction, it still makes sense for communities and industrial plants to prepare themselves for air attack.

● Some towns will tell their citizens to disperse during a raid; others will advise staying put.

● Business has been dispersing naturally—almost without noticing it—for economic reasons.

Last week, a stunned U.S. public was trying to absorb the hydrogen bomb into its thinking on civil defense. The bomb's implications, revealed by the sudden publicity on the Pacific tests (BW—Apr.10'54,p25), proved too monstrous to absorb all at once. The initial reaction was one of overwhelming fatalism.

A New Yorker shrugged morosely. "Civil defense?" he said. "For what? If an H-bomb hits, I've had it—whether I'm on the street or 50 feet under the ground."

A San Francisco schoolteacher gave her pupils the standard instruction to crawl under their desks at the sound of an air raid siren. "Personally," she added, "I think you'd be better off if you got down on your knees and prayed."

The civil defense chief of a big city said flatly: "The shelter idea is out." From now on, he said, the siren won't mean "duck and cover." It'll mean "clear the city."

All that was last week. This week, the wave of fatalistic thinking has subsided. Knowledgeable men have pointed out that a community can, after all, take steps to defend itself against an H-bomb. And with this heartening realization has come a new round of civil defense activity. The federal government, state and community governments, businessmen, and private citizens are taking stock of what they have done before and reappraising it in the eerie light of the new weapon.

• **Forgotten Circle**—Last week's wave of near-panic arose almost entirely from one aspect of the H-bomb: its huge area of total devastation. The bomb that was exploded last month, for instance, if dropped on a U.S. city, would reduce an area of 58 sq. mi. to total ruin. Not a building in that area would be left standing. Few people in the area could hope to survive.

That aspect of the bomb is so terrifying that almost everybody temporarily forgot a second aspect: the bomb's vastly bigger area of partial damage. Last month's bomb would have left some 593 sq. mi. of scorched, cracked, buckled buildings and injured people. In this huge area, pre-attack and post-attack defense measures can mean survival for both individuals and industries.

Hence, federal and state officials point out, civil defense does not become meaningless under the hydrogen bomb. If anything, it becomes even more important than before.

• **Warning**—The job of preparing for an attack will fall largely on individual communities and individual businessmen. The federal government thinks that's the way it should be. Existing community services—police, fire, sanitation—are well set up to handle matters both before and after a raid. Each industrial plant and office building, unlike an apartment house, has some sort of built-in leadership, and can be counted on to take care of itself.

The federal government will cooperate with communities and with business, of course. It will also handle the jobs of (1) intercepting enemy bombers and (2) warning the country of their approach.

A radar fence, and a chain of fighter bases, are gradually building up across the top of the North American continent. At least for the next year and a half, however, business and community air raid planners will have to do their figuring on this basis:

• There may be no advance warning at all.

• Cities around the western, northern, and eastern boundaries of the U.S. may get only 15 minutes' warning.

• About the best break any inland city can expect is an hour's warning.

Even an hour's warning is hardly any warning at all. The logical procedure, therefore, is to do all of your planning—down to the last detail—and as much of

H-Bomb

your work as possible before there's a . . hint of a coming raid. Some cities, and some companies, are going ahead with exactly that thought in mind.

I. Community Plans

U.S. cities will be in imminent danger if and when the next big war is declared. How do they go about taking care of themselves?

• **Take to the Hills**—There are three possibilities:

• As soon as war starts, evacuate to the country everyone who does not absolutely have to stay in the city. This would include all children and old people, many women.

Or . . .

• At the first warning of an approaching air raid, start everybody without exception moving away from the center of the city—from the point most likely to be the H-bomb's target.

Or . . .

• Advise all the people to stay put, seek underground shelter, and hope that they are in the area of partial damage.

• **The Choice**—The first possibility—evacuation for the duration of the war—has many strikes against it. It would be immensely hard to engineer. It would require families to split up—something that the average family would not care to do. Most civil defense officials agree that the idea is hardly feasible.

The second possibility meets with a mixed reception. If a city is to disperse its population quickly and effectively, it needs a spider web of broad highways leading out of town in all directions. Otherwise, the result would be panic, jamming and crowding. Few big cities have such a highway system.

But there are other cities that could conceivably resort to quick dispersal. San Diego and Atlanta are two. In San Diego, officials are thinking seriously of setting up a master dispersal plan, under which everyone in the central area would get out on the road and start moving at a moment's notice. Every individual would have to be told, beforehand, exactly where he was to go and by exactly what route. Otherwise, the result would be a howling jumble of crisscross traffic.

• **Stay Put**—Most cities, however, prefer to stick to the third defense measure. They'll tell their citizens to duck and cover.

These cities are busy educating their people to the tricks of survival in the



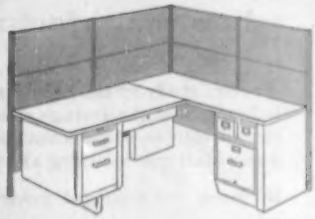
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6. Higher worker morale.
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atomic age. Many report increased interest in civil defense since the government released its awesome movie on the H-bomb. In Philadelphia, for instance, a sectional meeting of CD volunteers had an attendance of 200 last week. The standard attendance had been 20.

Philadelphia, like other cities, has switched its thinking from self-help to help from outside. In a conventional bombing attack, or even a Hiroshima-type atom bomb attack, the undamaged parts of the city could rally to the aid of the damaged parts. But an H-bomb attack would cripple the entire city. So Philadelphia officials are trying to work out a program whereby Philadelphia and nearby cities—including New York—will stand ready to help each other in the event of catastrophe.

II. Business Plans

Business' basic question about civil defense is much like that of individuals: Do we disperse or don't we?

The answer, for most businesses, may lie in the case of Boeing Airplane Co. and its home town—Seattle. In 1949 there was some serious talk, in and out of the federal government, of moving some of Boeing's huge production facilities away from their vulnerable spot in the northeast corner of the country. This pleased nobody in Boeing or in Seattle. Such a move would have been tremendously costly and disruptive to the company. Furthermore, it would have hurt Seattle's economy. Like any other city, Seattle was interested in luring new industries in, not in driving old ones out.

Boeing didn't move. But Seattle's civic officials and businessmen didn't forget the affair. They went to work on a dispersal plan—based not on moving old industries, but on placing new ones in dispersed positions around the city. The planning group picked sites that it considered well suited for this purpose. When a new company appeared on the horizon, it was invited to build in one of these chosen areas.

• **Economy**—So far, only one company has followed the planning group's recommendations. But the planners are fairly sure other companies will follow suit, for the sites have been chosen not solely for their dispersal value. Each site is an economically sound one; it's the kind of site a company might choose even if there were no background rumblings of war.

What was planned in Seattle may well be brought about in other cities by the inexorable workings of economy. For many years now, the trend of both residential and industrial building has been away from congested areas—out into the suburbs and country. The result has been a natural dispersal, unplanned but effective. Today, when a

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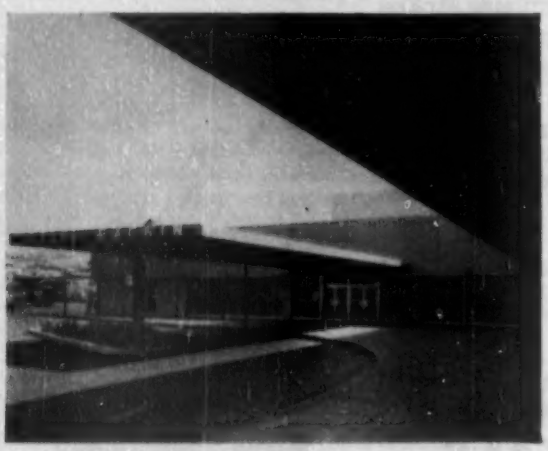


PERMANENT MAGNETS can greatly simplify design, as small, powerful Carboloy permanent magnets did in this aircraft fire-detection device. The magnets eliminate need for electronic amplification, operate from minute thermo-couple current.

SETTING THE PACE FOR INDUSTRIAL PROGRESS



The comfort problem in a large department store such as the Emporium above is quite different from, say, a small shop. Crowds change greatly in size; department needs vary. But Honeywell Customized Temperature Control easily meets the comfort problems in a wide variety of Stonestown shops.



Inviting modern exteriors, as this view shows, are an important part of Stonestown's customer appeal. Generous overhang provides shelter from rain and sun. Interiors of all buildings provide the finest of comfort—because Honeywell Customized Temperature Control is on the job everywhere at Stonestown.



Inside the medical center (above) you'll find a Honeywell thermostat in every suite or office. This means patients and guests can enjoy *individual* comfort—truly a customized feature that can't fail to please everyone who works in or visits Stonestown.

How Honeywell
Customized Temperature Control
helps you

Learn about your business—from a shopping center

Why Honeywell Customized Temperature Control is becoming a "must" in all types of buildings

THE state of *Business,* with a capital "B", depends on a multitude of varying factors. But to an important extent, the state of *your* business depends on the kind of service you offer—and *how* you offer it.

As an example of what this means, take the Stonestown Shopping Center in San Francisco. All aspects of sound shopping center construction and procedure have been carefully adopted.

Important among these is "indoor weather." Its proper control means a lot to the people who work there—and to those who buy there, too.

Today the best way to provide proper temperature control is through the use of *Honeywell Customized Temperature Control.*

The key word here is "customized." It means that whatever your control requirements, a Honeywell Customized Temperature Control installation *designed to fit the needs of the building and its occupants is your answer.* This applies not only to heating and cooling, ventilating and humidity control but to industrial control as well.

Only Honeywell can provide true "customized" control. Because only Honeywell manufactures all three types of controls—pneumatic, electric and electronic.

The story, in brief form, of the Honeywell Customized Temperature Control installation in the Stonestown Shopping Center is told here.

The *techniques* used, applied to your particular problems, can help give you the "indoor weather" you've always wanted.



Aerial view of Stonestown, the big regional shopping community in suburban San Francisco. Center includes apartments you see above as well as shopping facilities. Architects: Welton Becket & Associates, Los Angeles. Engineers: Deane & Hill, San Francisco.

For comfortable, even temperature in new or existing buildings –of any size–specify Honeywell Customized Temperature Control

Whether it's a shopping center, factory, office, motel, hospital, school–or any size building–new or existing, Honeywell Customized Temperature Control can help meet your heating, ventilating, air conditioning and industrial control problems.

You will not only enjoy more comfort and efficiency, you'll save fuel, too.

For full facts on Honeywell Customized Temperature Control, call your architect, heating engineer or local Honeywell office. Or mail the coupon you see on the right.

Henry Stoneson, community builder, president of Stoneson Development Corporation, owners of Stonestown Shopping Center, says:



"We believe Stonestown, a 'City Within A City', is one of the most pleasant in the world for the shopper. Important in helping make possible this comfort is our Honeywell Customized Temperature Control installation."

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Find out how you can simplify and reduce the cost of caring for waxed floors. *There's a Finnell Floor Specialist nearby* to help you choose the waxes and cleansers that are *exactly right for your needs. Finnell* manufactures a complete line, so you can depend on unbiased advice. In fact, *Finnell makes everything for floor care!*



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- Leaves a lustrous anti-skid protective finish
- Highly concentrated . . . economical to use

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company weighs the respective advantages of a city and a country location, the dispersal factor may well tip the scales in favor of the country.

• **Government**—With the federal government, dispersal has become a fairly precise matter. The Office of Defense Mobilization has drawn boundaries around 70 "critical target areas"—the big metropolitan complexes, which contain a total of about 90 cities. If a plant is built 10 mi. away from these boundaries, it is considered officially dispersed.

The government is doing what it can to encourage dispersal, though it has no means at its power to force cooperation. Officials note, however, that there's hardly any need for force. About 80% of all business expansion getting tax amortization aid involves dispersed sites. Government officials privately guess that this figure probably applies to all current expansion.

The government isn't using amortization as a lever to bring about dispersal, but it is using it to encourage building of protective facilities. It will grant 100% amortization in five years, to expanding companies, for features designed to protect employees and equipment in the event of an air raid.

• **Accomplishments**—Government civil defense planners aren't entirely pleased with the attack precautions that business has taken so far. But some towns have done a good deal of industrial defense work. Among them:

Niagara Falls has won 20 out of about 35 plant protection awards handed out by the New York State civil defense organization. The city's industrial defense work is under a coordinator whose salary is paid by local industries. Employees in most plants know exactly what to do, down to the last detail, when the attack alert sounds.

San Francisco's Bay Area Council has mapped the city and environs to determine which parts are most vulnerable to air attack. It has also studied the problems that might be faced by industry after an attack.

Union Carbide & Carbon Corp. has spent a good deal of money building shelter areas, running defense drills, and storing medical supplies. It has also been thinking of setting up remote control centers—duplicate executive offices from which the company can be run in an emergency.

General Motors Corp. has been concerned about "disaster control" for a long time. It has dealt with fires, tornadoes, and explosions—and feels itself prepared, now, to take care of an air raid. Its plants are scattered, because its corporate nature would have it that way. Each plant has a fire brigade and hospital. Important records have been microfilmed and stored throughout the country.

This is Philadelphia



Philadelphia, annual site of the Army-Navy Game, the Mummers' Parade and the Penn Relays, is daily the scene of intense business activity.

Industrial might, like the refining equipment above, is constantly being added to the area. Capital expenditures are at an all-time high—in oil, steel, chemicals and dozens of other fields. Throughout the vast 14-county Greater Philadelphia Market, Philadelphians are building a bigger, better tomorrow for themselves and their families.

With all this business excitement, Philadelphians rate home first and foremost. They constitute a rich, rewarding Market for the energetic seller; you can count on them to buy your product, once it has proved itself.

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LOCAL BUSINESS

Over or Under?

CORPUS CHRISTI—A hassle over whether this booming city on the Texas Gulf Coast shall get a bridge or a tunnel, to replace the old bottleneck drawbridge across the ship channel in the harbor, has the political pot here boiling as never before.

The tunnel seemed to have won last October when the City Council hired Palmer & Baker, Inc., consulting engineers, to make a feasibility study of a toll tunnel covering costs, traffic potential, and tolls required, and to recommend a financing plan. On Feb. 17 Palmer & Baker reported that such a tunnel was economically feasible.

That seemed to settle it. But on Feb. 25 the state Highway Dept. announced that it was in favor of a high-level bridge, and that the funds it had available to help finance the crossing would not be spent on any tunnel, toll or free. City officials and others in favor of the tunnel charged that the state had been pressured into that position by the bridge faction in town; the bridge advocates denied it.

The city considered putting through the toll tunnel anyway, without state funds, but the suggestion that the state might refuse to approve tearing down the old bridge or to let state highway markers go into the tunnel killed that.

Mayor Albert Lichtenstein and the council started holding daily sessions to try to untangle the problem. The climax came on Mar. 24, when Mayor Lichtenstein (pro-tunnel) resigned, charging the bridge faction was confusing the argument with half-truths. Last week Mayor pro-tem Ellroy King (pro-bridge) got through council a first reading of a resolution to pay Palmer & Baker off, reject their proposal, and thus set the stage for acceptance of the state's proposal.

And Lichtenstein has started an organization called Vigilant Volunteers "to watch out for the future of Corpus."

Cure for Jaywalkers

ROCHESTER—Aroused by 10 traffic deaths among pedestrians in the first three months of this year, Rochester has embarked on an all-out campaign against jaywalking. It has adopted what it thinks is a completely new approach.

Under a new ordinance, anyone caught crossing against lights or between intersections is given a "tag," which commands appearance not in court, but at police safety headquarters. There the offender hears a lecture on observing traffic safety rules, and sees a film showing traffic accidents involving



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See Clues on page 182

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pedestrians and pointing out their causes.

Failure to appear in answer to the "tag" results in a summons to city court; the penalty can be as heavy as $150 and 150 days.

Cutting Airport Corners

TOLEDO—This city's new airport seemed a certainty last May (BW—May30'53,p106) when taxpayers voted 2-to-1 in favor of permitting the city to spend $3.5-million on the project. But now the whole thing is up in the air again.

Main trouble is that it now appears certain that the airport as first planned cannot be built for less than $3.7-million, while the ordinance authorizing it limits expenditures to $3.5-million. The city administration has fought a losing battle to keep expenses within the limit, resorting to financial manipulations such as charging airport work to various city departmental budgets. It even considered leaving off the top inch of asphalt concrete on a crosswind runway.

The city also suggested elimination of a taxiway for a secondary runway, recommended by all major airlines that will use the airport; dropping an apron and taxiway for one hangar; or cutting out a coffee shop and bar in the administration building.

Finally the City Council, aroused by strong protests against such antics from the public, local industry, and the press, pushed aside administration protests that the airport can still be built for $3.5-million, and voted to go before the voters next month for an additional $300,000 to do the job right.

Over Another Hurdle

DENVER—The most controversial real estate project in Denver's history will finally get under way this fall, when Webb & Knapp, Inc., starts construction of its $25-million project on Courthouse Square. Webb & Knapp bought the site—then a park—way back in 1945. A lawsuit over the sale, then the Korean war, prevented construction.

Last summer, W&K finally announced plans to build a hotel and a department store on the site (BW—Jul.18'53,p134). Then the go-ahead was again delayed by difficulty in finding someone to operate the proposed buildings. Daniels & Fisher, an old Denver department store, soon agreed to take over the store building (BW—Sep.19'53,p80). And this week W&K reached an oral understanding with Hotels Statler Co.—Statler will lease and operate 700 rooms of the 1,000-room hotel; W&K will retain control of the other 300 rooms, will rent them on a longer-term basis.

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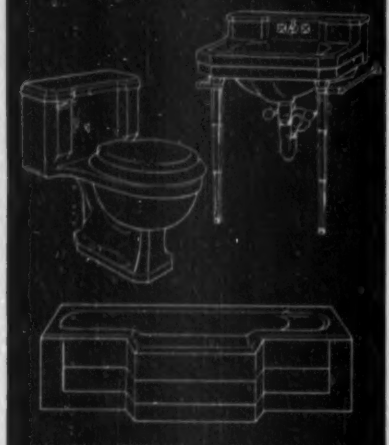
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COMMODITIES

Textiles: The Jitters Hurt

● **Hand-to-mouth buying all along the line adds to the woes of a mournful industry.**

● **Cottons do better than anything else, but nothing sensational.**

Last week, textile manufacturers opened their hearts to BUSINESS WEEK reporters and printed a dreary picture of the industry. "Business is terrible," moaned one. True, he was talking particularly about the rayon and acetate branch of the industry—which enjoys the dubious distinction of being worse off than any other. But cotton men in the South and wool men in New England went right along with him.

Biggest complaint, throughout, is the lack of forward bookings. Retailers, nervous about the general state of business, are playing the clothing market close to the chest. Since they can almost always get fast delivery, they can afford to let the manufacturer carry the inventory risk. The manufacturer, in turn, would just as soon pass the risk on to the converter or the mill. As a result, hand-to-mouth buying is the order of the day from production to distribution.

• **Cotton Ahead**—There are ups and downs within the over-all picture, of course. Cotton continues to do better than anything else—although, listening to the cotton people, it's still nothing to cheer about. Print cloths and cotton yarns had a flurry of activity in the first quarter, which has since died down. But in the meantime, the bellwether 80-square print cloth was particularly strong, prices edged up, and mills got fairly heavy bookings on the 80-squares through the second quarter. Yarn backlogs also went up sharply in January and February.

This is spotty improvement, at best. Generally, you hear the same complaint in cottons as in other fibers—extremely cautious buying. According to Herman Cone, president of Cone Mills Corp. (one of the largest in the business): "If the manufacturer sees a sure sale tomorrow, he'll buy from us today. I mean it's really hand-to-mouth; they're sending us orders marked 'ship yesterday.'"

Cone also told the annual meeting of his company that "the going is pretty rough and we see no signs of a pickup in business yet."

Another complaint you hear over and over is that mill margins are so thin. Cotton costs are rising; prices of the finished textiles are low.

• **Finishing Touch**—The big pitch in cotton dress goods these days is in special finishes. The man who sells his fabric is the one who dreams up something new in finishes. If he can make a cotton fabric come out looking like satin or taffeta, he's in. This makes the finishing end of the business pretty important and the finishers are keeping fairly busy.

Although cotton men may sometimes sigh for the good old days when designs were merely printed, most of them know that it's the special finishes and high styling that are giving them whatever good times they have now.

• **Hot Item**—Hosiery makers are beginning to recover from a slump. February sales were better than January; March figures aren't available yet, but indications are that March showed at least the usual seasonal upturn from February. Inventories have been worked off pretty well, and prices are noticeably firmer.

One hot item in hosiery, especially men's, is the "stretchy" type, made of pretwisted nylon yarns. These yarns can be stretched about 100%, so that one size fits any foot. Use of these yarns is now spreading into other fields, especially knitted underwear.

• **New Field**—Woolen and worsted business is dull. Mills are working on next fall's fabrics now; orders are little, if at all, better than a year ago. Wool-synthetic blends are out-pacing the all-wool or all-worsted fabrics, but even here business is far from plush.

Worsted mills, generally, are more adventurous this year. They're out to stir the buyer through the use of catchier designs and colors. One group of mills—those producing the specialty, high-priced fabrics—has more orders now than a year ago.

• **Saboteur**—Blends are getting an ever-firmer hold on the market. Estimates are that Dacron and Orlon blends, mostly with wool, will account for 22% of the summer suits this year. From the standpoint of over-all textile activity, this is all to the good. But it

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Second - while electrically controlled, it is not electrically powered. Instead of using heavy power solenoids to shift the valve, it uses the air it controls to do the work. Two sealed solenoids, hardly bigger than a thimble, act as "triggers" to release and direct the high pressure air.

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Of course, the Electroaire Valve is a built-in feature of all electrically-controlled Bellows Air Motors, but it is equally suitable for use with any conventional air cylinder up to bores of 4½" - 5".

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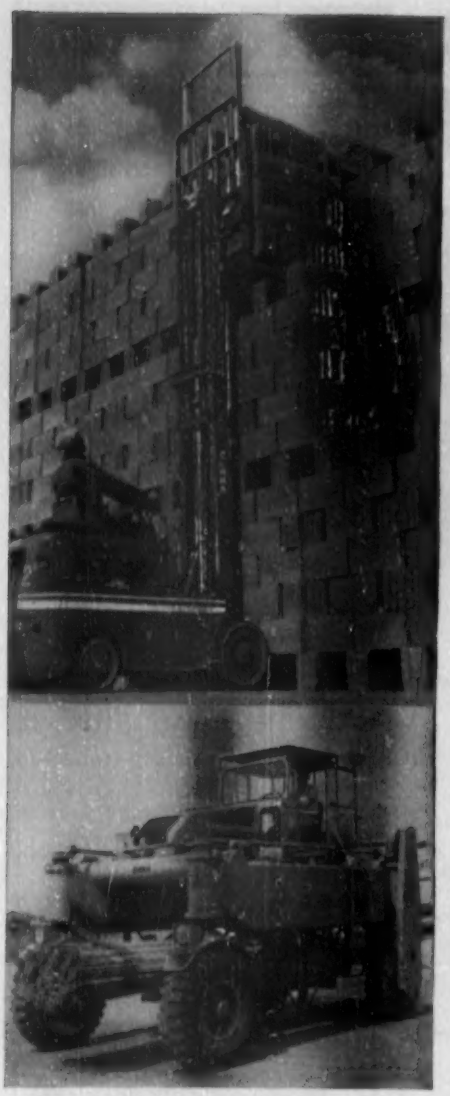
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has cut sharply into the market for wool.

The development has had another effect—a regional one. Mills making the blends are mainly in the South. Mills making all-wool and all-worsted fabrics are centered in New England, chiefly in Rhode Island. According to one Rhode Island textile maker, "the effect on this state, over the years, has been to put the worsted industry on a one-season basis. The only time you can sell heavyweights—or all-worsted suitings—is for fall and winter wear. Last spring's business among local mills was practically zero. Fall business, supposed to be coming in now, has to be good therefore, or mills look ahead to a lean year. And the outlook right now isn't bright." Another cold regional fact: Employment in Rhode Island's woolen and worsted industry is down from 30,000 in 1949 to under 10,000 in 1954.

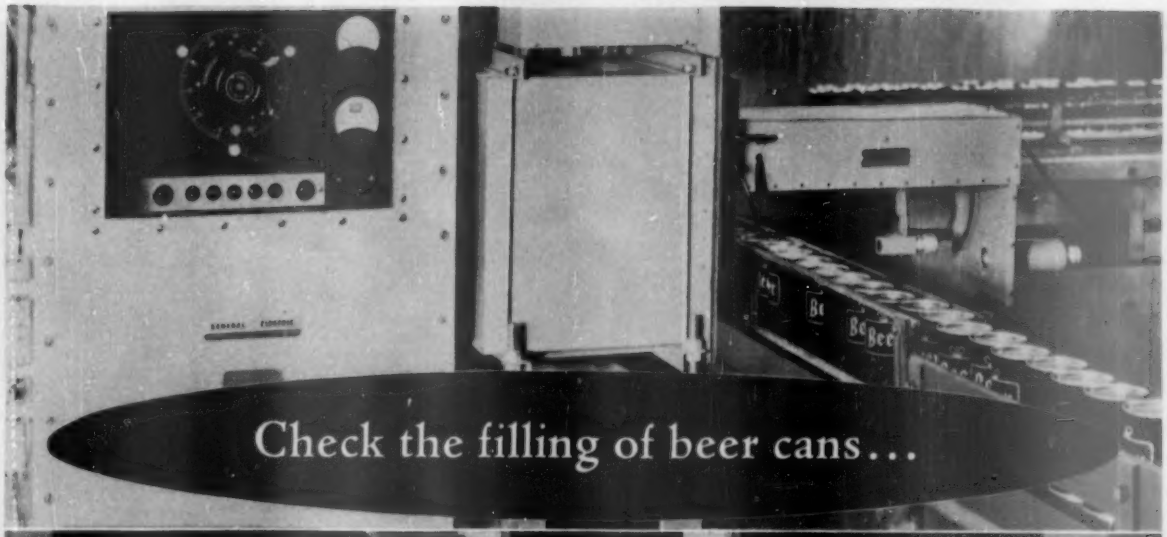
One happy note in the woolen and worsted situation, which it shares to some extent with cotton, is that inventories all along the line are down to a minimum. So, if and when retail buying develops, the mills will feel the change immediately.

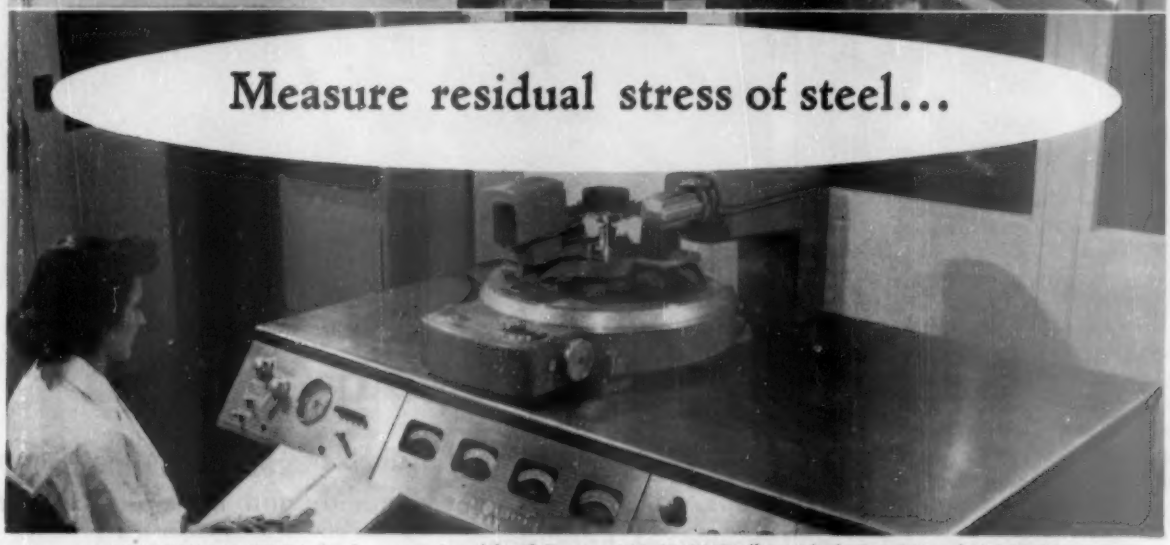
• **The Loser**—That's more than can be said for rayon and acetate. Production here is running well under capacity—and still the industry is producing too much. Inventories are depressingly high.

One observer sums up rayon's trouble this way: Rayon has lost a big part of the market in lower-priced apparel to cotton, partly because of cotton's catchier styling and its washability, and partly because of an over-all fashion trend away from the so-called "street dress" and into the more casual, sport-type clothing for everyday wear. At the same time that rayon has lost ground in the lower-priced market, it hasn't gained in the high-priced field. The competition is strong: Cotton has been promoted into a high-fashion acceptance it has never had before, and silk has a prestige all its own. Rayon, on the other hand, has a black eye left over from World War II days, when it was sent to do jobs for which it was never intended.

Better constructions and more attractive finishes and weaves are now available for rayon, but they're relatively expensive. Retailers, when faced with a choice between higher-priced garments made of rayon, silk, or cotton, pass the rayon by—even though the rayon may be as attractive as the other two.

For years rayon men have been saying, and rightly, that the hope for rayon lies in smarter styling, in new finishes and weaves. Now these are available—and the big question mark is still the retailer and his customer. The rayon industry finds itself with a big promotion job on its hands.





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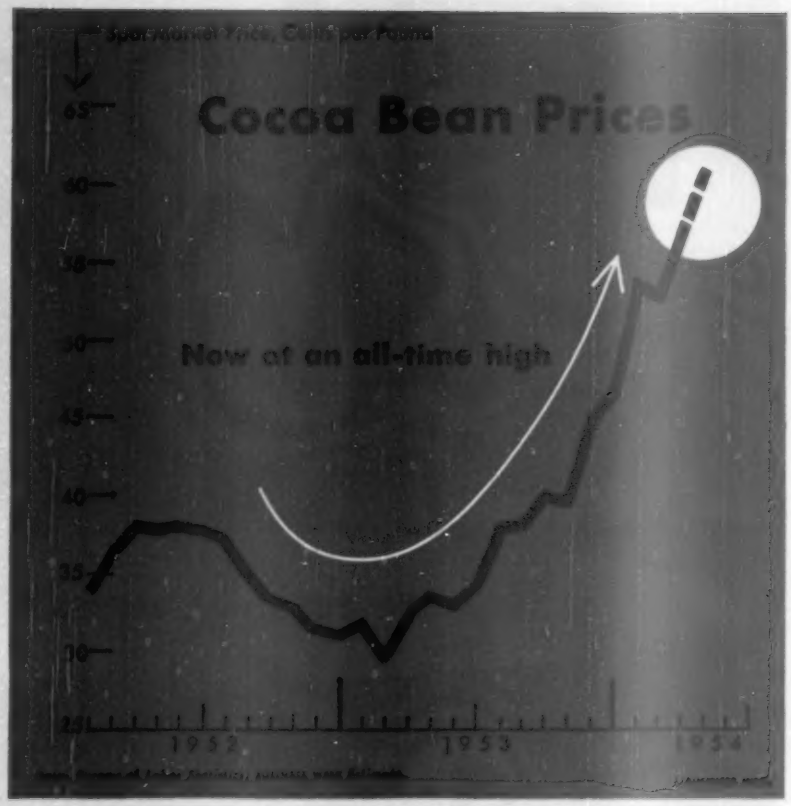
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It's Even Topping Coffee

The reasons for the climb are the same, too—short crops, low stocks, rising demand; and there are similar charges of price rigging.

Switching to cocoa won't get you off the hook of rising coffee prices. Actually as you see in the chart, the cocoa bean can give cards and spades to the coffee bean when it comes to shooting upward.

Cocoa bean prices have been rising since early 1953, and took a big jump in November. In February 1954 they hit a record high—and kept right on going. Prices now are about double the level of a year ago.

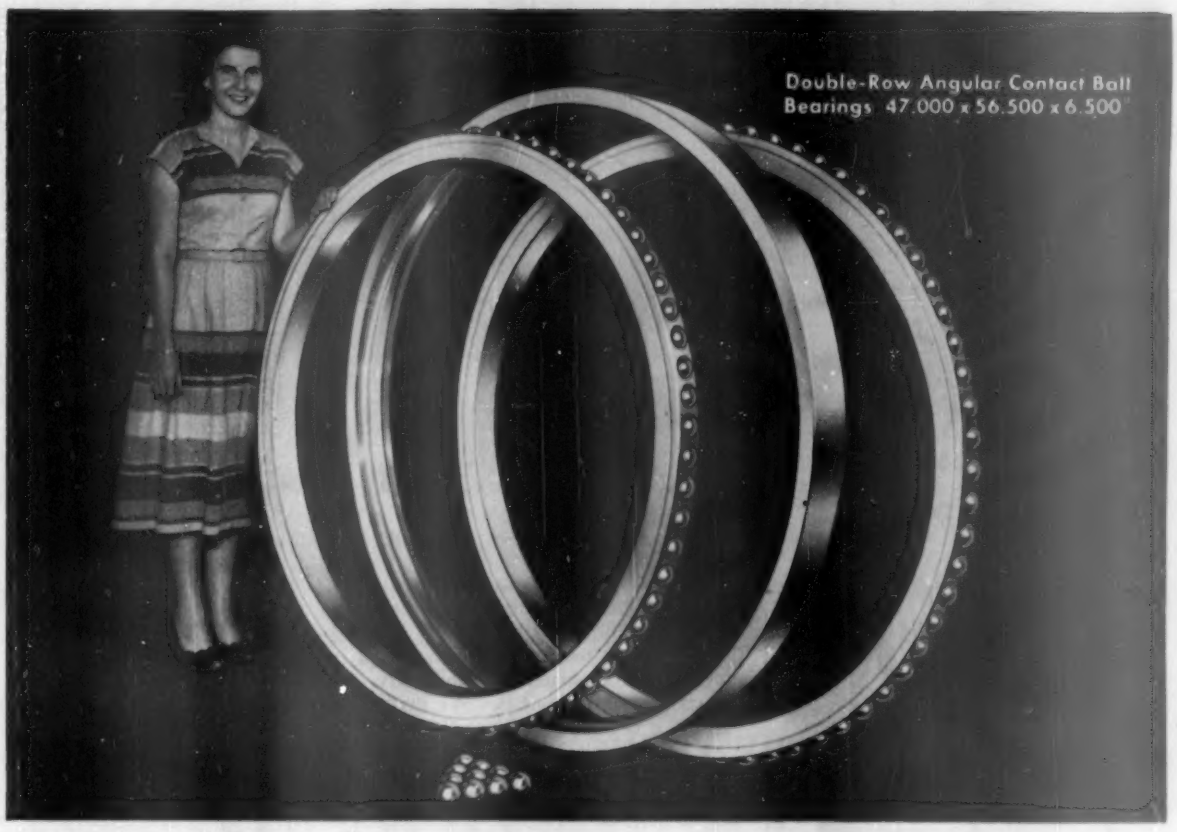
• **Short**—It's no accident that the two beverage beans have been jumping up the price curve together. Both have a short crop this year. For both, the short crop comes at a time when stocks are low. And demand—particularly European demand—is continuing to rise.

Cocoa comes chiefly from two British territories in West Africa—the Gold Coast and Nigeria—and from Brazil. The Gold Coast normally gives about 35% of world production. The most important single supplier, its crop, all harvested now, is the poorest in many years. Original estimates for the Gold Coast crop ran to 245,000 tons; the actual crop was 205,000 tons.

Brazil's crop will start coming through in May, and is supposed to be excellent. But with full allowance for the Brazilian crop, the trade figures on world production of around 755,000 tons this year. Last year's consumption, on the other hand, was close to 800,000 tons, and demand is rising. Hence the tightness in the cocoa market.

• **Is It Rigged?**—Some think there may be more to the situation than that, however—that perhaps the marketing setup for cocoa is pushing the price rise along.

In West Africa cocoa is grown exclusively by native Africans. In both the main producing territories, the Gold Coast and Nigeria, the cocoa is sold through marketing boards, staffed by Africans but responsible to the Colonial



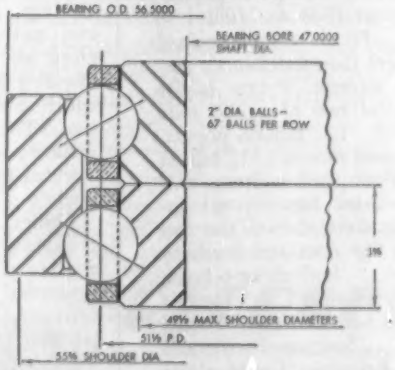
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Office in London. There have been charges that "price rigging" by a "British cartel" is to a large extent responsible for the current price run-up.

Those who make the charge say that, granted the supply is short, it's not short enough to cause a doubling in price all by itself. They claim that taking advantage of the market tightness through "agile marketing"—releasing a little at a time and at just the right time—can and does jockey prices up.

Others pooh-pooh the idea. They say there's no evidence of price rigging. They also contend that the existence of a single marketing board instead of a large number of individual sellers can't change the basic supply-demand position; that if the cocoa were there to sell, the marketing boards, in their own self-interest, would sell it. Some claim that the marketing boards tend to stabilize the situation instead of making it worse. They argue that without the boards sales might have been higher in the early part of the season, but that would have made supplies even shorter later on. Then, they say, prices would simply have skyrocketed on the remaining supplies. As one cocoa importer put it, "We might have been better off in November, but worse off in May."

• **Production Lag**—Cocoa prices, even before the current jump, were moving upward more or less steadily for a number of years. In 1945 and 1946 prices stood at around 9¢ a lb.—as compared with 34¢ a lb. in April 1953 and around 63¢ today. In many other commodities, this kind of price rise would have brought a big increase in production. Yet cocoa production has gone up very little.

There are several reasons for the lag. For one thing, it takes about seven years for a newly planted tree to start yielding. In addition, the West African, and particularly the Gold Coast, crops are attacked year after year by "swollen shoot" and other tree diseases, which consistently hold back production. The main defense against these diseases, at present, is cutting out the infected trees—which again reduces production.

• **Critics, Again**—Critics of the British marketing board setup feel there's still another reason why production hasn't responded better to the price rise. The marketing boards fix the price they'll pay the growers before the season starts. They sell the cocoa at world prices, usually at a very healthy profit. The Nigerian board later passes part of the proceeds back to the producers, but the Gold Coast board hands the lion's share of the boom profits over to the government as an export duty.

Part of this export duty is then set aside to develop more production (by new plantings, control of tree disease, and the like) but it doesn't reach the growers directly as an incentive to increase their own crops. So many in the trade who are willing to grant that there's been no deliberate price rigging still feel that operation of the boards has tended to prevent a rise in production.

• **Less Chocolate**—Whatever the cause of the shortage and the price rise, it has hit the chocolate industry hard. On the whole, the candy makers haven't yet passed the increase on to the public directly. In many cases, though, there have been hidden rises in the form of smaller chocolate bars. The nickel bar will probably stay in existence, but it's likely to get still smaller; and you'll likely see more and more dime bars. Instead of a thick, rich coating of chocolate on candies, many of them will have what one observer called a "Duco finish" of chocolate.

And there will be substitutes. Compound coatings made of a vegetable fat base and the much cheaper cocoa powder (instead of cocoa butter) are already being used.

So far there's been no consumer resistance to the smaller bars or to higher prices where they have appeared. Unit sales, both of the bars and of candy in bulk, have held up. But the industry is keeping its fingers crossed.

COMMODITIES BRIEFS

Drought and dust storms have cut prospects for the winter wheat crop by 72-million bu., according to the latest Agriculture Dept. estimate. Forecast now is for 678-million bu.—compared with almost 878-million bu. last year.

•

Refined zinc stocks swelled in March for the tenth straight month, according to the American Zinc Institute. But the increase was small, and the zinc market as a whole is stronger than it has been for a long time.

•

Sun Oil Co. announced a new, higher-octane gasoline this week. Sun says the new gas will continue to sell at the regular price, yet will "challenge all premiums"—scotching rumors that it was about to switch to selling premium gas as well as regular.

•

The price of copper, which has been shaky for nearly a year, now looks firm again at 30¢ a lb. Reasons: (1) Production has been cut back, both in the U. S. and in American-owned mines in Chile; (2) domestic demand for copper has picked up, while European demand continues strong; and (3) 100,000 tons of Chile's surplus have been safely transferred to the U. S. stockpile.



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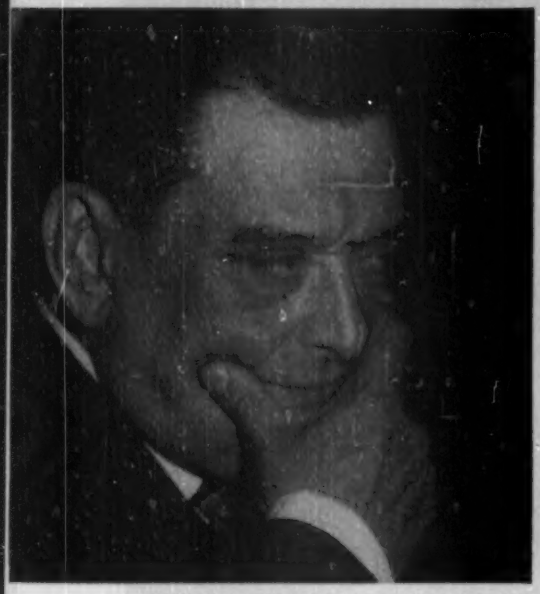
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FRENCH PREMIER Laniel watches Indo-China fighting; his fate hangs on whether Geneva can end it. For him and . . .

For France, Geneva Is Crucial

Indo-China may soon force a political shakeup in France and end the days of the center government in that country. Unless Secretary of State Dulles gets an Indo-China ceasefire at Geneva—and that will take some tall doing—the Laniel government is sure to fall. At that point there may well be only two possibilities—a shift to the left under a man like Pierre Mendes-France or a shift to the right with General de Gaulle either at the helm or steering from behind. In either case, U.S.-French ties would be weakened.

• **Triple Push**—It isn't just Indo-China that's pushing France off the political deadcenter where it has remained since the 1951 elections gave about equal strength in parliament to the Communists, Socialists, Popular Republicans (Catholic), Radical Socialists, Peasant Independents, and Gaullists. This lineup automatically produced center coalitions that have taken no decisive action to deal with France's domestic economic weakness or its foreign policy problems.

You have three developments on top of Indo-China that are bound to weaken this kind of center government:

• The European Defense Community, which has been the center's baby as well as Washington's, has been losing favor with more and more French politicians in recent weeks.

• The French Communist Party is switching its tactics, seems ready to cooperate with any government, either left or right, which opposes German rearmament.

• A right-of-center group, led by ex-Premier Antoine Pinay, is developing an economic program that might fill a gap that has always existed in de Gaulle's platform.

• **Dulles' Move**—Dulles' tough new U.S. policy on Indo-China hasn't gone down well in France either in government or opposition circles. Premier Joseph Laniel told the recessing French parliament last week that Foreign Minister Georges Bidault was going to Geneva with complete liberty to negotiate an Indo-China settlement. That's the only way Laniel could save his government from collapsing just ahead of the Geneva talks. But Dulles' new position means that France is in no position to negotiate at Geneva on its own. And hardly anyone in Paris thinks that Dulles can pull off a settlement at Geneva.

• **Unity Against**—The fact is that Frenchmen today seem almost unanimously convinced, though not all for the same reasons, that Dulles is off base on Indo-China. The Socialists and most of the MRP (Popular Republicans) are committed to ending the war just as soon as possible on the best conditions France can get. They don't object to putting negotiations on an international basis but they don't want to continue the fighting either alone or along with the U.S. and Britain. They can't see Peking dropping Ho-Chi-Minh publicly at Geneva—which the Dulles position calls for—without concessions to Red China which the U.S. is not ready to grant.

The Gaullists and many right-of-center politicians don't demand a quick end to the fighting. But they are opposed to internationalizing either the fighting or the negotiating, since either would end the special French position in Indo-China. As the Gaullists see it, American intervention would produce a Korea-type stalemate at best—unless the U.S. took military action that might produce a general Asian war.

The government itself is ready to admit that Red China's aid to Ho has increased plenty in recent months. But government officials don't agree that Red China has suddenly become a vastly greater menace to Southeast Asia. They think that if the U.S. really wants a settlement in Indo-China, Dulles is using sledgehammer tactics for a nutcracking job. Premier Laniel's own proposal suggests that he is ready for a ceasefire that would leave Ho free to keep his forces under arms in the north at least until a final settlement was reached.

• **Crucial**—For the French, the problem really boils down to this: How can Bidault negotiate an Indo-China settlement at Geneva without bringing a open break in U.S.-French relations? Unless either Dulles or he can achieve this, the Laniel government won't stand a chance after Geneva.

• **EDC Doubts**—The problem of EDC simply compounds the difficulties faced

Navy bomber stinger tail fabricated by Zenith Aircraft—Division of **Zenith Plastics Co.**, Gardena, California.



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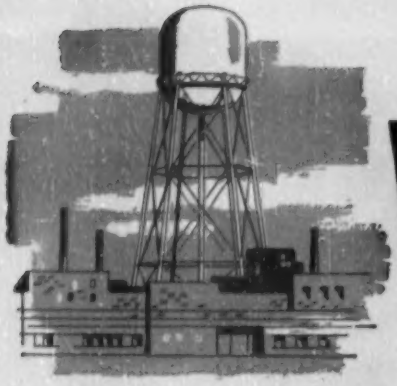
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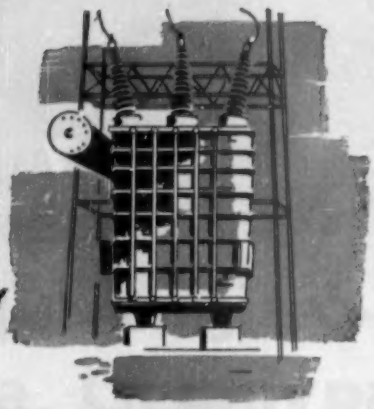
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Location in relation to the national market, natural resources, utilities and labor supply make this truly the "Valley of Promise" for industrial development. For detailed information write: Committee of 100, Suite 310, National Bank Building, South Bend, Ind.

SOUTH BEND and MISHAWAKA, INDIANA

COMMITTEE OF 100

by Laniel and Bidault. More and more French politicians feel that the joint European army plan, which Laniel and Bidault still back, has lost all military meaning. Originally it might have looked like the best bet for using German forces and German territory to deter Soviet aggression in Europe. But Frenchmen have had serious doubts about this deterrent function ever since Dulles announced the policy of strategic mass retaliation. What's more, Frenchmen no longer believe that EDC can be used to limit German ambitions in Western Europe. They even fear that the U.S. would use EDC to support the Germans rather than the French.

That's why there's strong support for the position now taken by Marshal Juin, the NATO ground force commander who has just linked up with de Gaulle. Juin wants to scrap EDC, have a setup putting German forces, like the French, directly under the NATO general staff.

• **Politics**—Internal political developments on both the right and the left add to the likelihood of a new political line-up in France.

Moscow's professed desire for a detente with the West, based on a continued division of Germany, suits many Frenchmen to a T. And the French Communist Party is readying itself to take advantage of the situation.

Red leaders like Benoit Franchon, boss of the Communist-dominated General Confederation of Labor, are playing down pro-Soviet political action and talking up economic betterment inside France. Franchon has called for a 24-hour general strike on Apr. 28 to pressure for a higher minimum wage based on a 40-hour week.

It looks as though the Communist Party is getting ready to back a new government if and when the Indo-China and EDC problems cool off. It's not impossible they would support either a left-of-center coalition under Mendes-France that concentrated on domestic economic problems or a rightist coalition dedicated to blocking any rearmament of Germany.

• **On the Right**—A shift of economic thinking on the political right could prove even more important to French politics in coming months. Pinay, who stood solidly on free enterprise principles when he was premier, has now come out publicly for an economic program that smacks of government control via state investment in industry. Pinay's program is not going down well in some business circles. But it may give the Gaullists a more salable economic policy than they have ever had.

So a new Pinay government, with de Gaulle's backing, or a de Gaulle government with Pinay's backing, isn't out of the question.

THE ARCHITECTURE OF BUSINESS GROWTH



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To many men, they are hinged by fate.

To a business that grows they are linked by planning.

For fate is a private, not a corporate, luxury.

Destiny a ball of clay that business, to grow, must knead with designing fingers. With experience, knowledge and instinct.

With vision.

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Write for Bulletin No. 60

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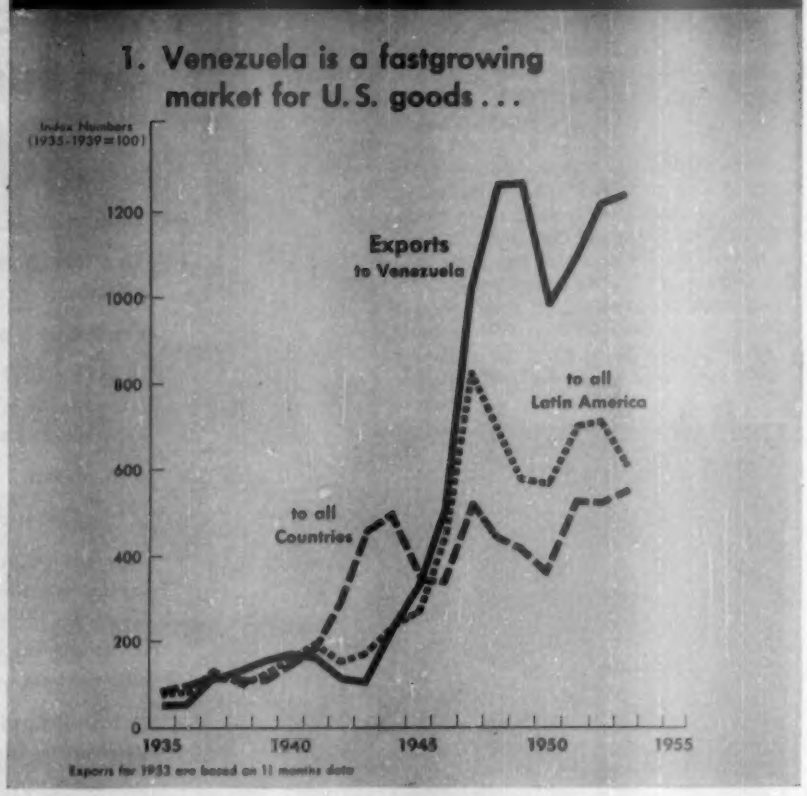
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ARISTOCRAT OF LOW CARBON GROUND FLAT STOCK

Creole Petroleum Makes a



Opposing Stiffer U.S. Bars

The facts and figures in the charts above are ammunition that Creole Petroleum Corp. will fire in a campaign launched this week to block stiffer restrictions on Venezuelan oil in the U.S. market.

In the next few months, the U.S. coal industry and others who claim the oil imports are causing serious injury and unemployment will press for higher tariffs or quotas. It's easy to see why Creole is in a mood to oppose this campaign: The Standard Oil Co. (N. J.) subsidiary fears new trade barriers could provoke a bitter reaction in Venezuela, even jeopardize its half-billion dollar stake in the rich Venezuelan oilfields. In its nationwide public relations drive to muster opposition, Creole will be voicing the sentiments of some 150 other American companies that do business in and with Venezuela, the members of the Venezuelan Chamber of Commerce of the United States.

Creole believes the charts above make a point that should swing behind it not only this group but a wide scattering of U.S. communities. Its battle cry will be an appeal to enlightened self-interest, pointing out that the lush, fast-growing Venezuelan market for U.S. goods hinges overwhelmingly on Venezuelan oil sales in the U.S. Creole plans to hammer home the "trade, not aid" theme by stressing the impact of this market locally in towns all over the U.S., such as those in Iowa (chart, right).

• **Hefty Customer**—Touchstone of the campaign is a report prepared for the Venezuelan Chamber by the Econometric Institute, a New York economic research firm. It's a unique effort to pinpoint the economic spread and geographical depth of a foreign nation's U.S. purchases, state by state, product by product.

The institute's report, published this week, starts off with a roundup of the size and growth of U.S. exports to Venezuela. From a piddling $19-million in 1935, Venezuela's purchases of U.S. products soared to $509-million, second only to Mexico as a Latin American customer of the U.S. last year. The report goes on to estimate invisible exports—management and engineering services, insurance, transport, and the like—at another $350-million.

The report is at pains to point out that Venezuela is a cash customer—only some $12-million worth of imports have been financed by a U.S. government loan. And it reveals that 5-million Venezuelans buy more U.S. goods per capita—$92 last year—than any other nation in the world except Canada.

2. . . . and every town shares the business.

Take Iowa . . .

These towns . . .	. . . sell this in Venezuela
Cedar Rapids	cereals, boilers
Charles City	farm machinery
Clinton	chemicals
Council Bluffs	dairy products, eggs
Des Moines	furnace equipment, metal products
Forest City	dairy products
Fort Madison	fabrics, finishes
Maquoketa	engines
Sioux City	concrete pipe machinery

on Oil

In the throes of rapid industrialization, Venezuela has grown into almost a quarter-billion-dollar market for U.S. machinery and vehicles. It buys $74-million worth of metals a year. Since agriculture hasn't kept pace with industry, Venezuela comes to the U.S. marketplace for some $68-million worth of foodstuffs a year.

• **Local Stake**—The meat of the institute's report is the effort to find out where these Venezuelan imports come from. It remarks that there's a tendency in the trade debate to think of exports as affecting only the port cities through which they are shipped.

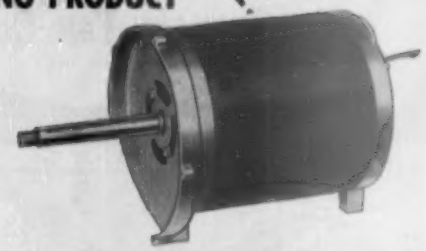
Over the past few months, the institute polled some 3,800 companies and individuals thought to have a stake in Venezuelan trade. It got replies from 760 companies in 450 towns in 43 states, representing 34% by value of total U.S. exports to Venezuela. The researchers claim this is a good return on a voluntary direct mail poll—particularly when it is often impossible to pinpoint the town of origin of many exports, especially grains, meats, dairy products.

Working then with what are obviously minimum figures, the report found New Jersey the top supplier to Venezuela, with $25-million worth of goods, or 15% of the sample. New



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Franklin Electric Motor



The job-engineered Franklin motor provides ¾ horsepower with low current consumption to safely operate the multi-purpose Shopsmith on house wiring.

This special Shopsmith design cut costs, yet increased value with the specially designed ventilating system, permitting cool operation in the compact, totally enclosed Shopsmith headstock.

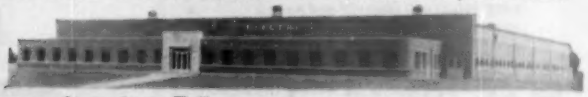
When you design any fractional-horsepowered product, you may gain much through checking Franklin's idea file. The coupon will bring you facts.





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You can bank on it...

And lots of bankers do! One bank found that its worn-out mail scale overweighed, cost more than $2 a day in wasted postage!

This precision Pitney-Bowes mailing scale is as accurate as an interest table. Its automatic pendulum mechanism registers weight fast. Its hairline indicator and wide-spaced graduations never waver. Large, wide-spaced markings are easy to read, speed mailing...Special models for parcel post...Ask the nearest P-B office to show you. Or send for free illustrated booklet.

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York is in second spot, with $20.5-million, followed by Michigan, Ohio, Pennsylvania, Illinois, California, Texas, and Indiana.

In the New Jersey roster were cables from Trenton, autos from Metuchen and Edgewater, cellulose from Parlin, cosmetics from Paterson and Morris Plains, elevators from Harrison, drugs from Bloomfield, roofing material from Ridgefield, and so on down the line. Across the country the list records beverage straws from the District of Columbia, children's furniture from Haleyville, Ala., seeds from Moscow, Idaho, and flour from Alva, Okla.

Some of the company respondents added comments. Many were enthusiastic about helping increase and liberalize trade between the two nations. Others were cautious in revealing their trade figures. A few took the opportunity to beef over Venezuela's own tariffs, which have in some instances been jacked up to protect new industry.

• **Trade Pitch**—Despite the limited sample, Creole and the Venezuelan Chamber think they have the makings of a strong trade pitch. They mean to merchandise it around the country in what Creole vice-president Lloyd G. Smith (who is also president of the Venezuelan Chamber) calls "our first experience with this kind of PR."

Newspapers will be asked to editorialize on their area's stake in Venezuelan trade; companies and workers involved will be urged to write their congressmen; there may be a TV film, showing Venezuelan goods being made in a U. S. town. Creole president Arthur Proudfit and some other executives are coming in from Caracas to barnstorm, talking to chambers of commerce, service clubs, trade groups, "anybody who will listen."

• **Simmering Fight**—Creole timed its campaign for a moment when the oil quota fight was fairly quiet, but nonetheless bubbling determinedly under the surface. The coal industry and independent U. S. oil producers, backstopped by various protectionist groups, haven't given up hopes of cutting back imports of Venezuelan heavy fuel oil, which they maintain have usurped markets for U. S. coal, thrown 30,000 miners out of work, and undermined domestic oil production.

Rep. Richard Simpson of Pennsylvania, who last year sponsored a bill to impose oil quotas, is preparing a counter bill to the renewal of the Reciprocal Trade Agreements Act requested by the President two weeks ago. As an alternative strategy, Simpson and his allies may try to tack quotas in the form of amendments to the Administration bill, if it looks like it will go through. Either way, there will be a stiff fight, and Creole hopes its campaign will help swing the tide of battle toward a liberal trade bill.

Q. *Could mica insulation be made sufficiently uniform and "leak-proof" that thin layers could keep thousands of volts within bounds?*

A. NOW—ELECTRICITY CAN BE "WRAPPED" better, tighter, safer, lighter.

Another example of

GE

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This is mica mat by General Electric—so *uniform* that even the tremendous voltages within huge turbine generators can find no hole, no crack, no weak spot.

Composed of countless thin, uniform flakes of partially dehydrated mica, bonded together with specially developed resins, mica mat is so flexible it forms readily into wrapping tapes or slot sheets.

It can be molded, bonded, laminated, treated. Use less of it for vital insulation and get more power per pound from electric motors and generators. Build more compact units yet sacrifice neither dependability nor protection.

Now—in the scores of industries using power equipment, electricity can be wrapped better, tighter, safer, lighter—thanks to this development of General Electric chemical and electrical research.

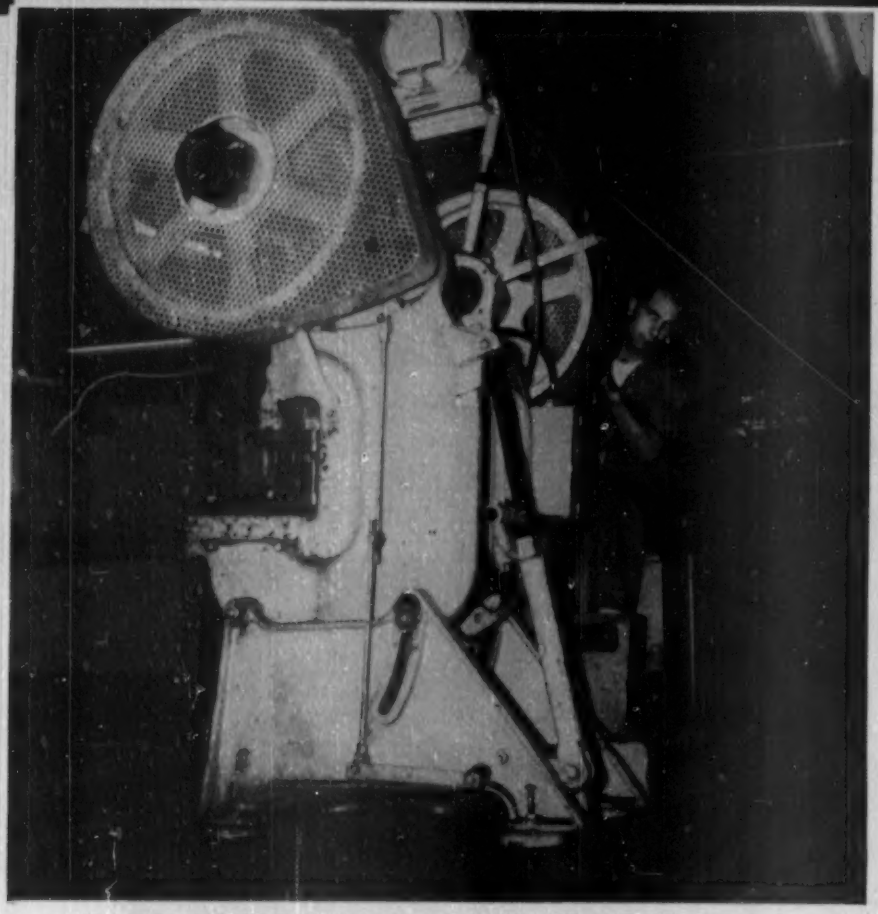
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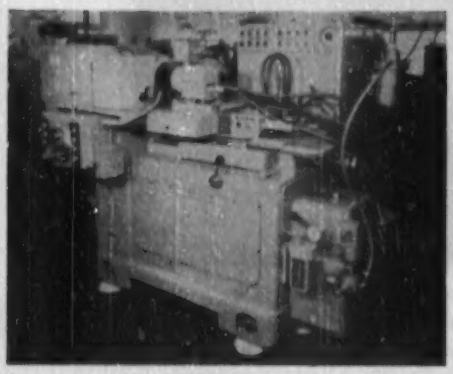
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NO LAGGING MADE THIS PRESS "MOBILE." This 45-ton Perkins punch press was moved 200 feet — and was out of production only 5 minutes, because it was on Leveling Barrymounts.

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GRINDER ACCURACY PROTECTED. Leveling Barrymounts protect this Heald Size-Matic from external shock while grinding the inner races of miniature precision ball-bearings to within tenths of thousandths of an inch.

Your product costs can be cut because mobile machinery offers you flexible production layouts. Machine maintenance and reject costs are cut because damaging external shocks are isolated. Installation costs are cut because requirements for certain foundations are eliminated—no lag bolts to set or shims to drive, yet machines will not walk.

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SALES REPRESENTATIVES IN ALL PRINCIPAL CITIES

Germany's Comeback in World Markets

(Exports of Manufactures)

	1937	1950	1953 First half
United Kingdom	22.4%	26.5%	21.9%
United States	20.3	28.2	28.1
Germany *	23.4	7.6	12.7
Other European countries	21.5	27.7	26.2
Canada	5.0	6.4	7.3
Japan	7.5	3.6	3.8
Total	100.0%	100.0%	100.0%

* All Germany prewar, Western Germany postwar.

Data: British Board of Trade. ©BUSINESS WEEK

But British Hold the Line

Britain's Board of Trade has come up with a study of world exports of manufactured goods that is meant to calm British fears of German competition. The study, published in a recent issue of the Board's Journal, also gives some interesting facts on the postwar standing of the world's trade leaders in exports of manufactured goods.

• **Ratio**—The board finds that the German share of the world market in manufactured goods—12.7% of a $26-billion total in 1953—is still considerably off the prewar 23.4% mark (table), while British exporters are holding the line near their prewar position.

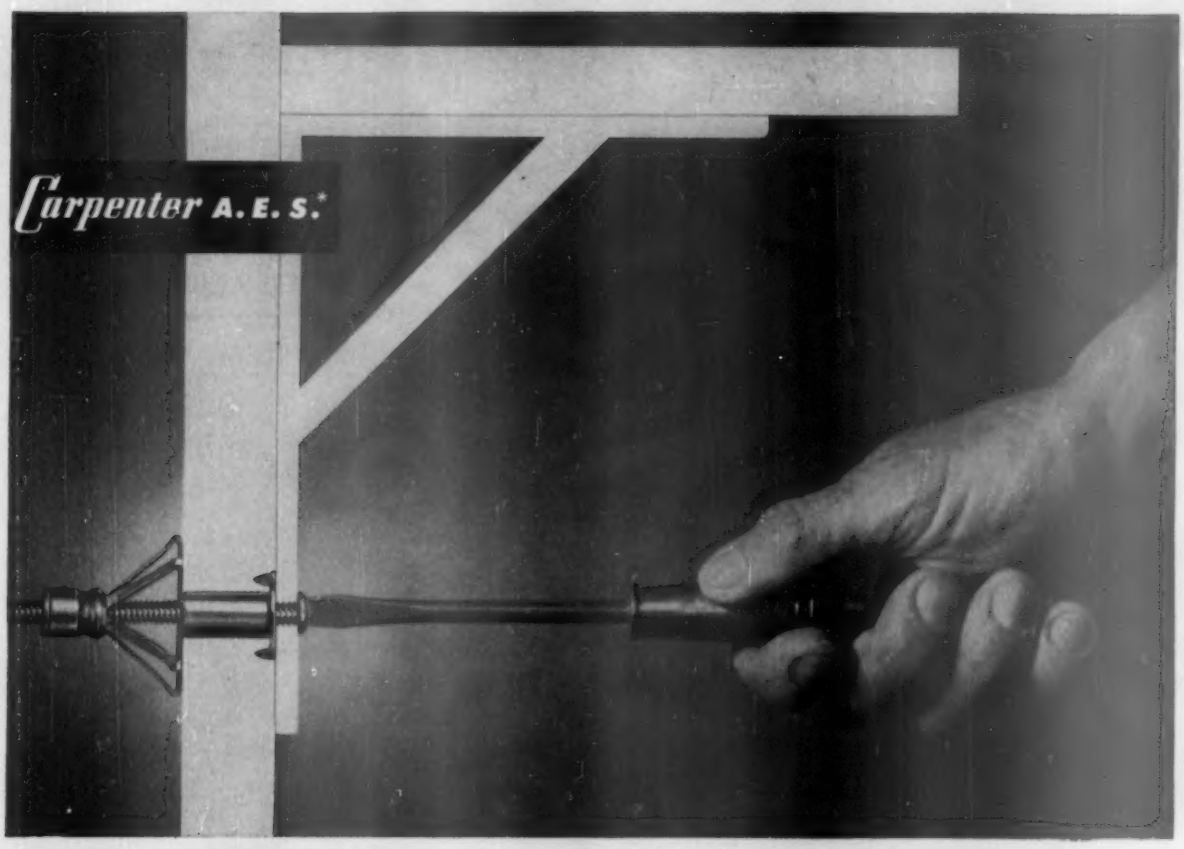
The study indicates that German export gains in manufactured goods in 1950-51 were made at British expense. Since then, they've been made mainly at the expense of Japan and West European countries other than Britain—France, Italy, Belgium, and Sweden.

In 1950—when war-ravaged German industry was just getting back on its feet—Britain's share stood at a postwar high of 26.5%. In 1951 that was down to 22.7%—just above the prewar mark—while the German share rose to 10.4%. Since then, Britain has maintained a near-1951 figure, in the face of rising German competition.

It's likely, too, that German over-all gains from now on won't match the pace of the past few years. In particular lines, though, the Germans will continue to make big strides. German machinery shipments, for example, have been climbing in the past year, expanding faster than the total world exports.

• **Growth**—Other points made by the board's study:

• U.S. and Canada have snared enough shares of the world market in manufactured goods exports to put them considerably ahead of their prewar positions. The U.S., with 28.1%



Help for Handymen at Home



Another example of how Carpenter *Application Engineering Service is helping industry cut costs.

Ever try to turn a screw through plaster into a hollow wall? The result is usually disastrous . . . unless a device, such as this patented screw anchor, is used. With this anchor it's an easy matter to drill a hole, insert the device, then turn it tight. And it holds securely. But you'd be surprised at the production problems involved, even with a small item like this. For example, it's a highly competitive product turned out in huge quantities. This means that the tools and dies used to make it have to be just right—they have to hold sharpness, be accurate, provide adequate toughness, and hold up in the presses with no trouble while producing millions of parts.

To help control production costs, the manufacturer called on Carpenter Application Engineering Service for counsel in selecting die steels for the different sections of the progressive dies. A.E.S. supplied the answer—recommended five different steels in the Carpenter Matched Set . . . each engineered to perform its job best. Here, in the manufacturer's words, is the result: "With the help of Carpenter die steels we've been able to control our production costs so closely that there has been no price increase in the last five years!" (A detailed Field Report on the tooling for this job is available on request.)

Time and again, industry is finding new ways to hold costs in line and improve product sales with the help of Carpenter Application Engineering Service. A.E.S. is a service backed by almost 70 years of leadership in specialty steel development. It embraces trained Field Engineers, experienced representatives, competent Mill Metallurgists ready to work with you for best results. A.E.S. starts with your first call to Carpenter. THE CARPENTER STEEL COMPANY, 140 W. Bern St., Reading, Pa.

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In magnified illustration above, note how film of ordinary rust inhibiting paint at center stays on surface; does not penetrate pores to contact sound metal.

Segment at right of illustration shows how Steelcote Halts-Rust penetrates pores, contacts and protects sound metal surfaces underneath.

"Protection depends on Penetration"
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Steelcote "HALTS-RUST"

IS SUPERIOR IN ITS FIELD!

Gentlemen:
Please send information on
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Send now for the "Prove it to Yourself" demonstration of Steelcote Halts-Rust's superior pore penetration and protection over the rust inhibiting paint you are now using. No obligation. Reduced costs, less frequent painting — these are a few of the savings offered you by Halts-Rust. Jobbers in all principal areas.

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IN CANADA: G. H. Wood, Ltd., TORONTO

of the market, now heads the list compared with its third-place rating in 1937.

• The size of the exports market in manufactured goods—measured in value of exports—has grown threefold since 1937. In that year, exports amounted to $8.5-billion.

BUSINESS ABROAD BRIEFS



East German IFA cars (above) are flooding Finland, selling in Helsinki at the equivalent of $480—just about the cheapest auto in Europe. Communists are planning to push Scandinavian sales of IFAs and other Soviet bloc cars by setting up an assembly plant in the Finnish capital.

•

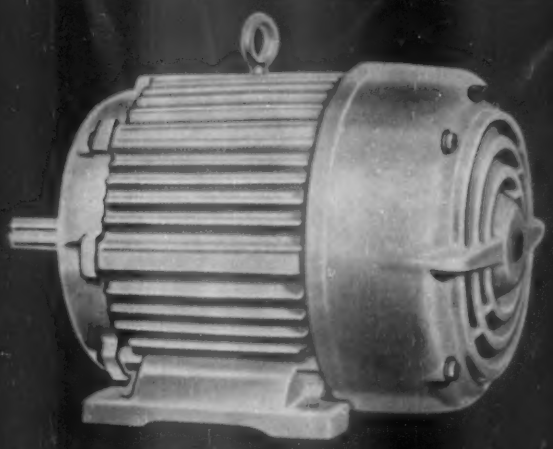
Max Braun Co., West German electrical manufacturer, is negotiating a licensing deal with a U.S. TV manufacturer (Braun won't say who) to make its equipment in Braun's Frankfort plant. Braun recently completed a $15-million reverse deal licensing Ronson Art Metal Works, Inc., to make Braun's electric shavers in the U.S. (BW—Mar.6'54,p110).

•

Japan's textile industry—overextended and overmanned—has been hit by a bankruptcy wave. In the first quarter of this year, 171 textile dealers went out of business. That's over twice the number of failures in the same period last year.

•

Monsanto Chemical Co. is teaming up with West Germany's Farbenfabriken Bayer, A. G., of Leverkusen—one of the survivors of the postwar deconcentration of the I. G. Farben chemical empire. They'll set up a jointly owned plant in the U.S. to make isocyanates, used in porous plastics and fibers. Size, location, and production of the plant remain to be negotiated.



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The Louis Allis Co. proudly presents the NEW L.A. *Line of electric motors*



Upper: New L.A. Fan-cooled and Explosion-proof Motor

New L.A. Open, Drip-proof Motor

Here is complete utilization of more than 50 years of motor engineering and development—the new L.A. line of electric motors. More than just a "face-lifting" to meet the new NEMA standards, these motors are entirely new through and through—with such features as new modern styling . . . improved ventilation . . . greater motor protection . . . new conduit box arrangement . . . new bearing construction . . . and more versatile mounting.

Improvements in motor design, materials, and manufacturing methods make the new L.A. line possible. These motors pack more power in a smaller, lighter, more functional package. Yet they sacrifice none of the high Louis Allis standards of performance and liberal design.

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Special Note *Louis Allis motors in old NEMA standard frame sizes will still be available if you require them for interchangeability or replacement.*

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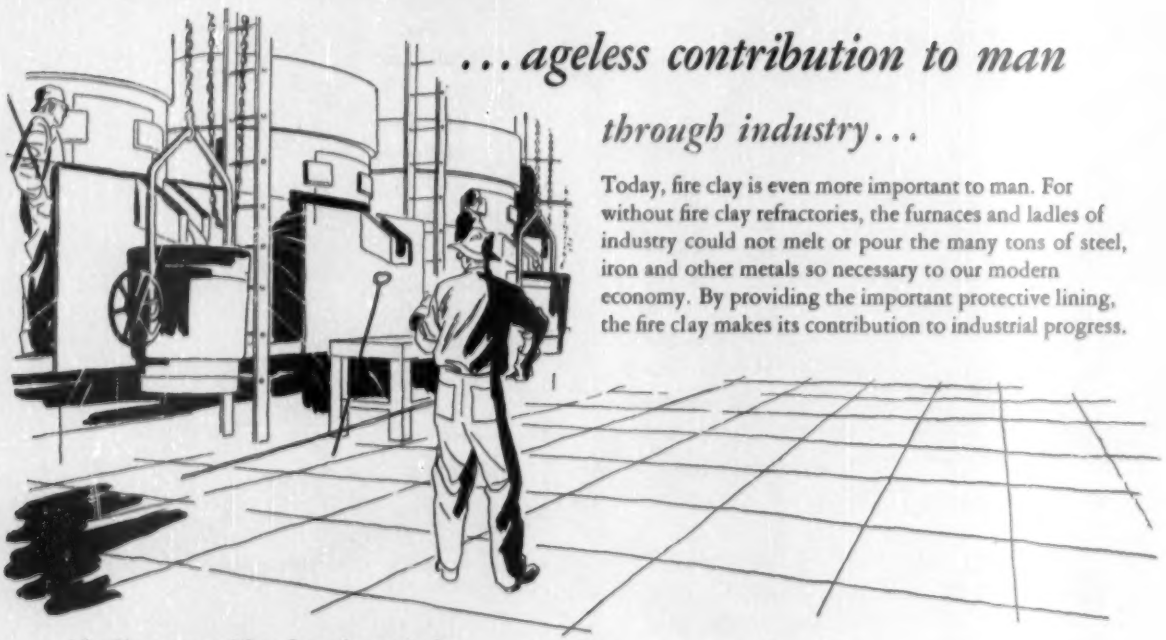


through communication . . .

More than 4,000 years ago, this receipt* for 5590 large bundles of reeds was inscribed on clay in cuneiform writing. Found in Iraq among the famous Kish ruins, the inscription was dated in 2226 B.C.

*Courtesy of Chicago Natural History Museum

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Today, fire clay is even more important to man. For without fire clay refractories, the furnaces and ladles of industry could not melt or pour the many tons of steel, iron and other metals so necessary to our modern economy. By providing the important protective lining, the fire clay makes its contribution to industrial progress.

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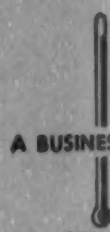
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INTERNATIONAL OUTLOOK

BUSINESS WEEK
APR. 17, 1954



Secretary of State Dulles has won British and French backing for a collective defense system to protect Southeast Asia from Communist aggression.

What Dulles, Eden, and Bidault have in mind is a defense pact, including Asian as well as Western nations, which would be like the North Atlantic Treaty Organization.

The Dulles-Eden-Bidault agreement amounts to the kind of joint warning to the Communists that Dulles wanted from London and Paris. It puts Moscow and Peking on notice that the West really means business in Indo-China.

Barring a sudden political upset in France, Dulles now has a united front for Geneva. He may even turn the conference into a real showdown with the Communists, which isn't at all what Moscow had counted on.

Already Dulles has won a round from Molotov. He has stymied the Soviet Foreign Minister's scheme to get separate truce talks between the French and Ho-Chi-Minh.

At Geneva he aims to force Molotov and Peking's Chou En-lai to restrain Ho, start working on a settlement that would leave Indo-China safe from Communist control.

One thing Dulles won't buy is a partition of Indo-China along Korean lines.

It will take all Dulles' diplomatic skill to turn the tables on Molotov to this extent.

For Molotov figured a few weeks ago that he had things fixed so Geneva would produce an Asian security pact that excluded the U. S. from any role in Indo-China.

Moscow's secret agents had made all the arrangements for early truce talks in Paris between Ho and the French. Some of Ho's representatives had been sent to Paris, others were standing by in Prague.

But Dulles undoubtedly will do some tough talking at Geneva.

He's ready to tell Molotov and Chou En-lai: If Geneva fails and Red China continues to build up Ho's strength, the U. S. will back French and Vietnam forces to the limit. At the same time Washington will push the Southeast Asia NATO plan.

In fact, the U. S. is ready to throw in American naval and air power if that's needed to beat the Reds in Indo-China.

If Peking reacts to this by intervening openly, the U. S. would take military action against China itself.

But Dulles doesn't expect Peking to move massively into Indo-China as it did in Korea.

As the State Dept. sees it, there is this big difference between the two situations: If U. S. forces had reached the Yalu, Red China's main industrial area—Manchuria—would have been threatened. Peking has no such vital stake in northern Indo-China or even in south China.

In addition, the Mao regime is all set today to launch a big industrialization program. There is no way it can achieve its economic goals and still fight a Korea-type war in Indo-China (BW—Apr.3'54,p130).

Britain, this week, made its own contribution to Western unity by pledging close ties to the European Defense Community.

This British move will reassure the French about German domination of EDC, give the joint army project a big boost. And the French can soon expect a new U. S. statement on American commitments to NATO.

Among other things the Churchill government has promised to:

- **Keep troops on the continent** as long as there's any threat of aggression.
- **Put one of the British armored divisions now stationed in West Germany into an EDC corps.**
- **Merge Royal Air Force units with EDC units** in each NATO air group.

—•—

An Iranian oil settlement is closer than at any time since nationalization.

Down-to-earth talks have begun in Teheran between the Iranians and the new consortium of international oil companies.

Some of the problems that stymied earlier negotiations have been reduced to manageable size by the course of events. For example, the Iranians are now faced with a tough buyer's market; so they have scaled down their price demands.

Apparently Teheran is now willing to accept, in one form or another, a deal much like other Middle Eastern oil producers. They may ask the oil companies to pay $1.20 a barrel for crude, which would net Teheran about 80¢. This is roughly what Saudi Arabia gets from its 50-50 royalty deal.

With American and French firms linked up in the new consortium with Shell and Anglo Iranian Oil Co., **it should be easier for Iranian to let foreign technicians come back.**

Agreement on AIOC's compensation won't be easy, of course. But in the end British claims may boil down to AIOC losses during the long crisis. **And the U. S. or the World Bank may help Iran to pay off any claims finally agreed on.**

Winning the confidence of the Iranian government will be the toughest job for the oil negotiators.

Teheran is politically calm right now. But there's still a lot of unexpired dynamite in the oil issue. The government may have to get pretty rough to get the Majlis and the country to accept a reasonable settlement.

Washington will keep its fingers crossed until the oil actually starts moving.

—•—

A big row is blowing up between Britain and the Union of South Africa.

It's over control of three British protectorates—Basutoland, Bechuanaland, and Swaziland—which are in the center of South African territory.

Premier Malan has just renewed a 40-year-old demand that Britain hand these territories over to the Union.

But London has refused right along to transfer the native population to South African control. And Churchill is taking the same stand today.

British feeling is especially strong now because of Malan's oppressive native policy. **If Churchill gave way to Malan, there'd be a political storm in Britain**—one that could easily bring down the Conservative government.

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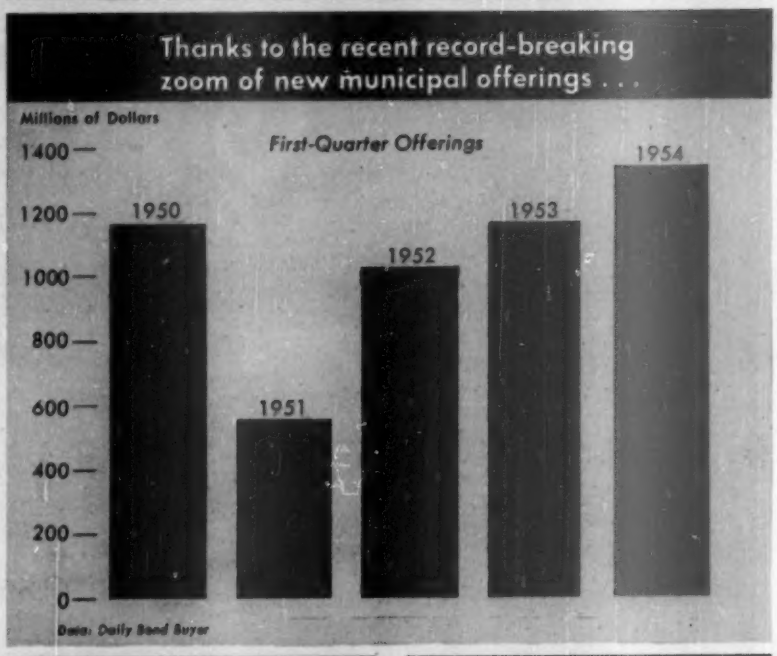
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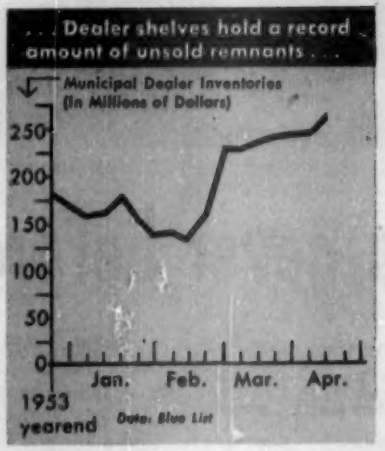
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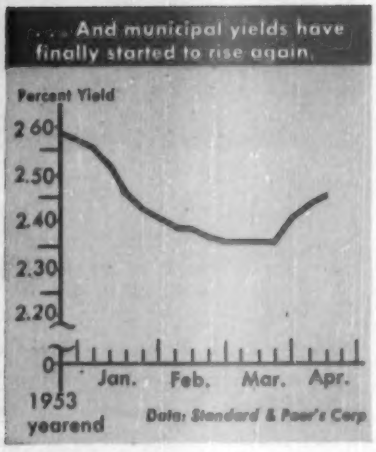
FRANCIS CHERRY
Governor



THE MARKETS







Just Too Many Municipals

When the tax-exempt municipal bond market had an attack of indigestion last month (BW—Mar.20'54,p132), many dealers hoped the trouble was only temporary. But it wasn't. As the charts above show, things have been getting steadily worse.

That doesn't mean the patient is near death's door. Nonetheless, municipal bond dealers are up against some really serious problems. They have done a good deal of price-shaving in the past few weeks, and this has started yields moving upward for the first time since last summer. But the record-breaking volume of new issues pouring into the market continues to outstrip the demand by an ever-widening margin.

• **No Relief**—The dealers' shelves are now sagging with a huge amount of undistributed remnants. Early this week, according to the Blue List, these remnants added up to $272-million—highest inventory total ever. And municipal marketers admit that the actual total may be even higher. In times like this, when inventories are moving up, dealers are loath to talk much in public. There are probably more unsold goods gathering dust on the racks than the Blue List knows about.

This is only part of the diagnosis. It seems likely that the tremendous gush of new offerings will continue for several months more. According to the Bond Buyer, the municipal trade's Bible,

the supply of new issues already scheduled for the next 30 days adds up to almost $250-million. This doesn't include the king-size $240-million toll road issue that the Massachusetts Turnpike Authority will auction May 4.

• **Price Cutting**—How are the dealers going to move their mounting inventory into the hands of buyers?

One solution would be to cut prices sharply—much more sharply than they have been cut up to now. Most dealers will tell you, off the record, that investors still have enough money to buy big quantities of municipals. They'll buy plenty, if the price is right.

But, just as in any other trade, price-cutting in the municipal bond business whittles down dealers' profit margins. Municipal dealers would rather not cut prices sharply, except as a last resort.

The dealers see one other possible way out of their dilemma. They think their plight may influence the Federal Reserve Board to cut the present reserve requirements of member banks. This would free more bank reserves for investment. And it would help the municipal trade greatly; banks, of late, have been accounting for a big percentage of municipal bond sales.

Trade observers think the dealers will wait for some such help as this rather than cut prices drastically.

• **Corporates**—Thus far, the corporate bond market has been in much better shape. Lately, though, inventories of unsold bits of 1954 offerings have begun to climb fairly sharply. It's believed that dealers this week had as much as $100-million worth of these remnants in hand.

The trouble in the corporate market has been a buyers' strike. Competing banker syndicates have bid so enthusiastically that, in trying to market the bonds, they have had to ask too high a price to give buyers a satisfactory yield. The buyers have balked. Several syndicates have been forced to dissolve in the past few days, a large part of their offerings still unsold. In each case, the issues involved have been traded in the resulting "free" markets at prices one or two points below official offering levels.

Yields Nosedive As The Bulls Cavort

Stock	Recent Price	Sept. 1953 Low	Percent Gain	1953 Cash Dividend	Yield
Abbott Laboratories	47.87	39.12	22.4%	$1.80	3.7%
Allied Chemical & Dye	86.50	62.00	39.5	3.00	3.5
Aluminum Co. of America	75.50	45.00	67.8	1.60	2.1
Amerada Petroleum	190.00	150.25	26.5	3.00	1.6
American Can	39.50	33.00	19.7	1.40	3.5
Carrier Corp	61.75	57.00	8.3	1.85	2.9
Corning Glass Works	98.75	77.00	28.2	2.00	2.1
Dow Chemical Co	37.25	33.75	10.4	1.00	2.7
E. I. du Pont de Nemours	118.00	94.00	25.5	3.80	3.2
Eastman Kodak Co	55.25	41.75	32.3	1.80	3.3
Ex-Cell-O Corp	68.50	39.50	73.4	1.50	2.2
General Electric Co	108.12	68.62	57.6	4.00	3.7
B. F. Goodrich Co	90.50	60.50	49.6	2.75	3.0
Gulf Oil Corp	56.87	41.25	37.9	2.00	3.5
Hercules Powder Co	78.75	60.25	30.7	3.00	3.8
Hooker Electrochemical Co	69.50	55.00	26.4	2.00	2.8
Houston Lighting & Power Co	34.87	23.75	46.8	1.05	3.0
Houston Oil Co	76.50	54.00	41.7	2.25	2.9
Int'l Business Machines	315.00	226.00	39.4	4.00	1.3
Johnson & Johnson	63.75	55.50	14.9	1.40	2.2
Lily-Tulip-Cup Corp	71.75	61.75	16.2	2.50	3.5
Minneapolis-Honeywell	80.25	55.50	44.6	2.25	2.8
Minnesota Mining & Mfg	63.75	43.87	45.3	1.00	1.5
Monsanto Chemical Co	85.37	79.00	8.1	2.50	2.9
Owens-Corning Fiberglas	58.00	38.00	52.6	0.60	1.0
Panhandle Eastern Pipeline	79.75	65.00	22.7	2.50	3.1
Pennsylvania Glass Sand Corp	40.00	28.00	42.9	1.20	3.0
Procter & Gamble Co	76.75	60.25	27.4	2.60	3.4
Rohm & Haas Co	175.00	120.00	45.8	1.60	0.9
Scott Paper Co	84.50	60.50	39.7	2.65	3.1
Sears, Roebuck & Co	60.75	56.12	8.2	1.50	2.5
Shell Oil Co	92.00	65.50	40.5	3.00	3.3
Skelly Oil Co	48.00	33.62	42.8	1.60	3.3
Standard Oil Co. (Indiana)	82.00	65.62	25.0	2.50	3.0
Sun Oil Co	73.00	69.75	4.7	1.00	1.4
Tennessee Corp	54.25	33.00	64.4	2.00	3.6
Thompson Products	58.12	41.25	43.3	2.00	3.4
Union Carbide & Carbon	78.50	62.87	24.9	2.50	3.2
Vick Chemical Co	33.37	25.62	30.3	1.20	3.6
Westinghouse Electric Corp	63.50	39.50	60.8	2.00	3.2



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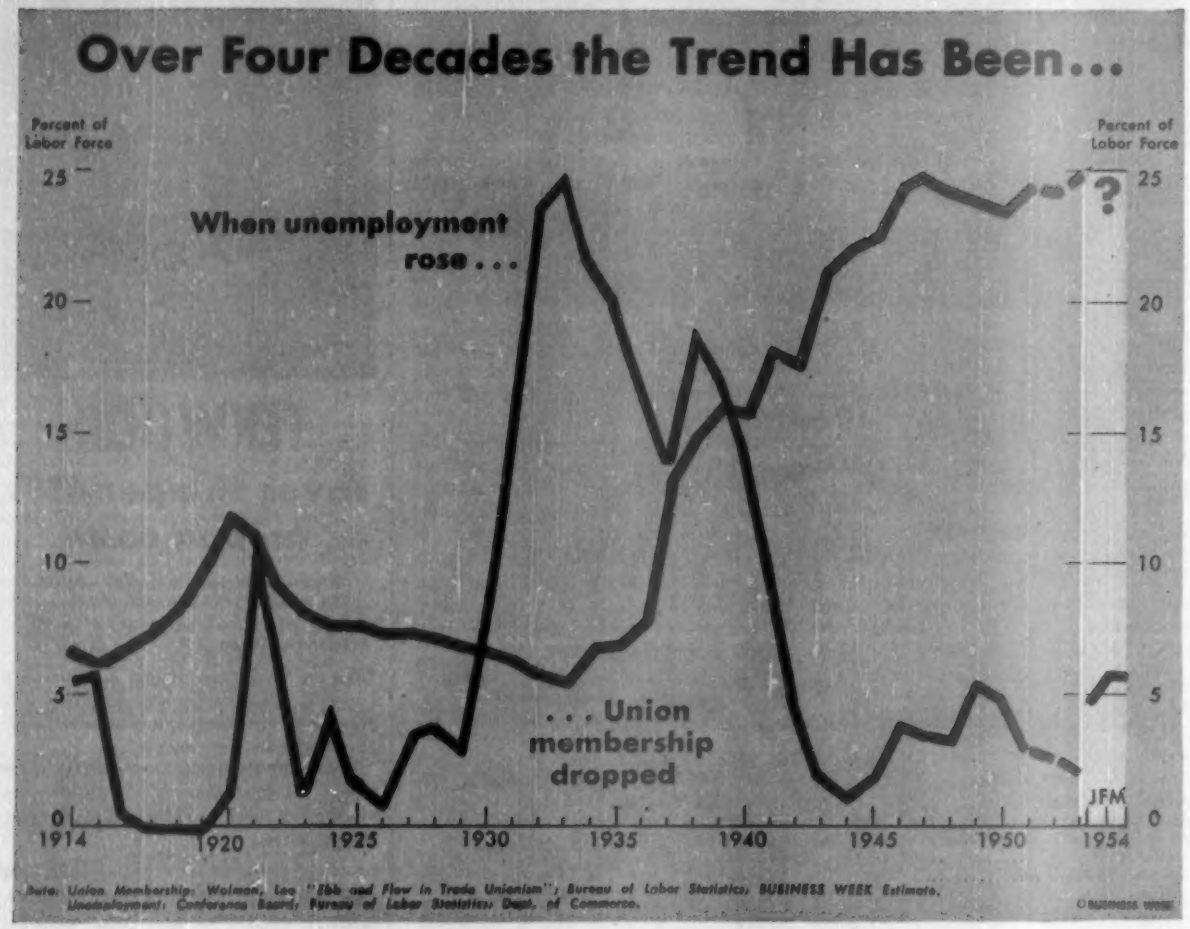
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Will Layoffs Hit the Unions?

The chart above shows one reason why unions are keeping a watchful eye these days on the shifts in the economy, and particularly on the employment levels. In the past, each time the economy has softened and employment dropped, organized labor's ranks have grown thinner. Only when the economy was going full steam ahead have unions grown bigger and stronger.

As yet, unions are just beginning to feel the impact of the recent unemployment rise. It's not heavy enough to worry them much at present. But they are alert to the possibility of trouble if the rise should continue.

• **CIO Worst Hit**—CIO's industrial unions have suffered most so far, because it's in mass-production industries that unions are affected quickest by changes in the economy. AFL's craft unions have felt very little impact from unemployment, outside railroad shops.

When union members are unemployed they pay no dues to their unions—and the unions in turn reduce per capita payments to AFL or CIO. Heavy unemployment in CIO unions has therefore had its effect on CIO's income. No figures have been announced, but CIO reportedly laid off more than 30 organizers—out of 260.

This doesn't mean that CIO is pinched financially. It admits declines in revenues, but Walter Reuther, CIO president, told New York reporters recently that it is "by no means bankrupt, or curtailing operations." According to Reuther, CIO now has $2-million in liquid assets and maintains "four times as many staff members in the field" as rival AFL.

• **Steel Losses**—The United Steelworkers (CIO), which faces the opening of contract bargaining in the next few weeks, is particularly hard hit by unemployment. The American Iron & Steel Institute last week put February employment in the industry at 636,000—7% under the 1953 average. This wasn't news to USW, which had just counted about 16% (or 189,000) of its 1.2-million members idle—an increase of 80,000 in two months.

This high level of joblessness in USW ranks has cut about $250,000 a month from last year's peak dues collections. This hefty slice out of income has forced some drastic revisions in USW's budget—a general tightening up on expenditures and elimination of some frills. But USW is still in the black, has laid nobody off and cut no salaries, and is maintaining "all services, without any reductions."

As far as its internal structure is concerned, USW isn't particularly concerned—now—about the impact of unemployment. But the steel union

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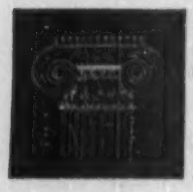
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recognizes that its 1.2-million membership is the product of years of full operation of a greatly expanded steel industry. If output should now stabilize at a lower level, the union will over the long run lose strength and prestige—unless it finds new sources for members.

Steel mill unemployment will have an immediate effect, though, when USW bargains on a new contract. With the industry running at a slower pace, and many idle, the union may find rank-and-file militance hard to drum up. But don't expect the loss of $250,000 a month dues to temper USW's bargaining: The steel union is sufficiently well-heeled to make the income cut insignificant as a bargaining factor.

• **UAW, Too**—That goes for the United Auto Workers (CIO), as well. UAW, which claims over 1.4-million

THE LABOR ANGLE

Shorter Work Week: A CIO Paradox

OPPOSITION TO the 30-hour week, enunciated by Walter Reuther as CIO policy, appears to have occasioned some surprise in management circles.

It has always been assumed that the unions have a tradition-honored commitment to a shorter work week; that it is pressed as a forceful economic demand on both employers and government when unemployment becomes a problem. That assumption remains as true as it ever was. And for the long run it provides an accurate forecast of one important union objective. But from time to time a situation will arise that develops a seeming paradox. That is the case now.

As a trade unionist, Reuther has not repudiated the shorter work week as a labor goal. His position against it now is based on short-run, tactical considerations.

IN THE FIRST PLACE, he cannot really believe that the economic outlook is quite so foreboding as he himself—along with a large chorus of critics of the Republican Administration—has publicly stated. If he were convinced that we are in fact heading into a protracted period of unemployment of considerable magnitude, he would be leading the voices demanding a 30-hour week. There is, after all, no other way to maximize employment in a job scarcity period.

But Reuther must, at heart, doubt that such a period is at hand—because he takes a position determined by secondary factors. Although his own union, the United Auto Workers, will not engage in serious wage bargaining until next year when its contracts expire with General Motors, Ford, and Chrysler, most other CIO unions have new wage deals to make soon. As president of CIO, as well as of UAW, he has some responsibility to these other organizations. For the present, at least, almost every one of them is more wage-conscious than employment-conscious. They want no pressure diverted from wage demands; they feel that this can be a year of wage increase opportunity—that it may be the last such year for quite a while.

AT HIS OTHER DESK as UAW president, Reuther has an internal union situation to worry over. The backbone of UAW strength is a large group of "old-timers" who, like Reuther himself, came into the organization when it was established in the 1930s. These are members with long seniority in the industry. When layoffs impend, their interests are opposed to those of newer members who have less seniority. Shortening the work week would make them share the loss of earning time equally with younger hands. Holding the work week at 40 hours, but cutting the number employed, would leave them where they are, since layoffs are made on a strict seniority basis.

Unless unemployment gets really bad and even the "old-timers" are threatened, Reuther will steer union policy to favor the interests of this group in UAW, if a choice must be made.

THIS IS THE explanation of what seems to be a paradox. Reuther has had the CIO take what, it should be understood, is an interim position. The vigor and vehemence with which he asserts that position should not disguise the fact that it is a transitional point of view. If unemployment becomes a more acute problem, look for the CIO's position on a shorter work week to change after the year's wage pattern has been set.



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members, last week reported 185,000 to 200,000 jobless and a "substantial" drop in income below the peak level of 1953's second quarter. But UAW, as USW, reported it is still in the black.

"We're not in the red, or anywhere near that point," UAW said. And with a total $20-million treasury—including between $15-million and $16-million in liquid assets—it's not particularly worried, now.

• **IUE Problems**—High-level unemployment is causing some headaches for the International Union of Electrical Workers (CIO), which has less financial fat to live on than USW and UAW. Joblessness in its membership ranks is running beyond 10%—probably nearer 15%.

It's spotty unemployment, hitting some places hard (in General Electric Co.'s Syracuse (N.Y.) plant, 25%; in GE's big Lynn (Mass.) works, about 20%) and barely showing up in others. IUE's major bargaining tests this year are with GE, in which IUE reports 16% unemployment, and with Westinghouse Electric Corp., which it says is less hard hit.

Obviously, the job decline will be a factor in IUE bargaining—and also in management's. But as far as effects within IUE are concerned, the CIO union claims that membership gains in recent months, mostly at the expense of leftwing United Electrical Workers (BW—Mar.20'54,p57), have offset its "temporary" losses due to unemployment.

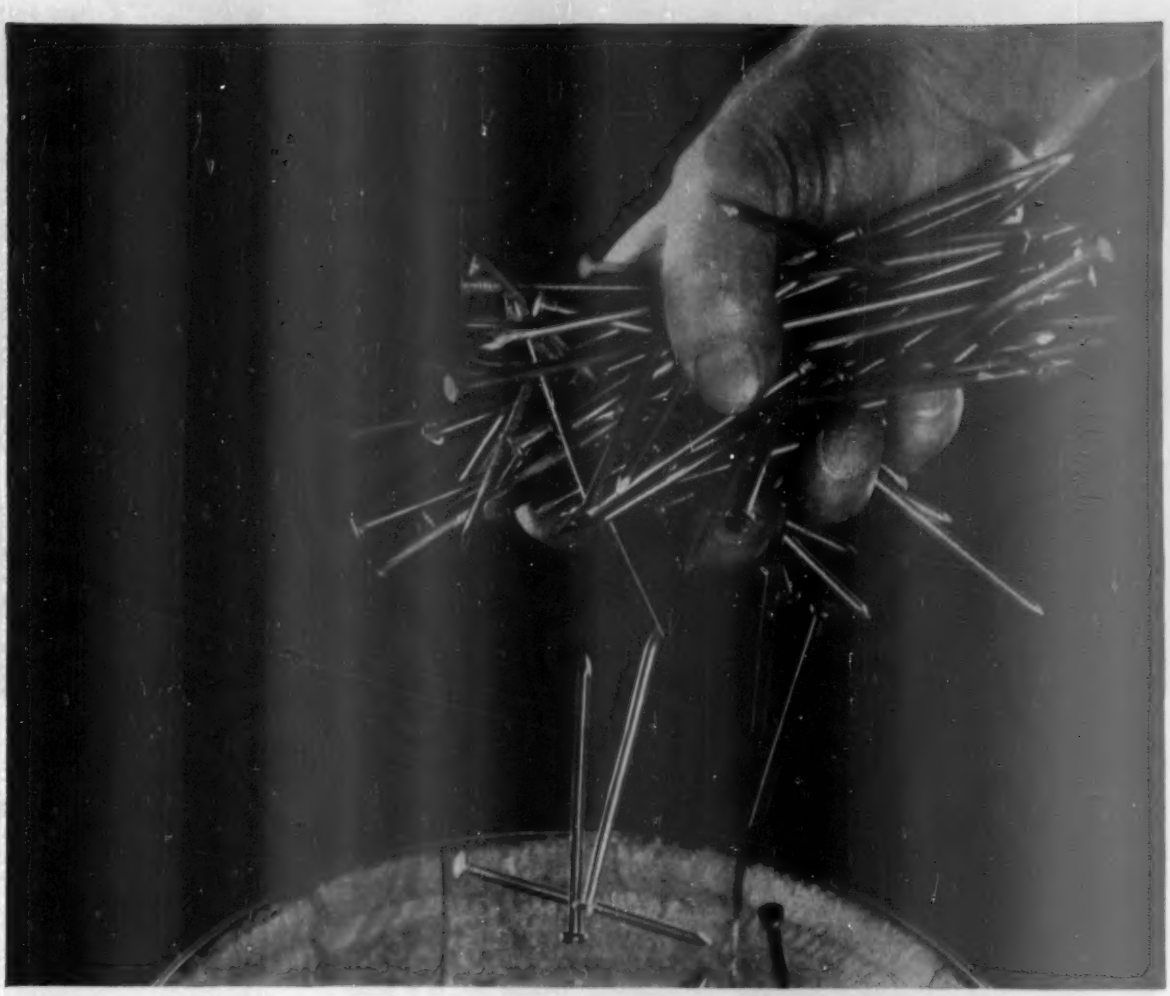
• **Others in CIO**—Two other major CIO unions are on the verge of contract bargaining: the United Rubber Workers and the United Packinghouse Workers. Both say they feel some impact from unemployment but nothing serious.

URW paid a per capita tax to CIO on 194,900 members in March, down 6,000 from last year's peak. Its income is off, too, but not "dangerously so," according to URW; it's still "in the black" without any cuts in services—or any changes in bargaining plans.

UPW has about 10% of its membership in layoff status. But the loss of dues is "not causing any financial problems for the union," spokesmen say. UPW won't give out any current membership figures (the last: 192,000 in 1952) but admits a loss of 2,000 to 3,000 members through production cutbacks so far.

• **IAM Unworried**—Inside AFL, the International Assn. of Machinists—an industrial-type union—recently reported 75,000 of its 650,000 members jobless.

As a "growing" union, IAM reports that its budget and internal affairs are little affected by high-level joblessness in its membership ranks. New members so far this year "have just about made up for the decline in income we otherwise would have noticed," IAM says.



Millions for tenpennies!

Here's how commercial banking contributes to the world's biggest output of hardware.

In 1953, for American craftsmen—amateur as well as professional—the hardware industry produced some 1,680,000,000 pounds of nails.

But that's only one small item in the annual production of our great hardware industry!

Last year's total outlay for hardware came to a cool $2,698,000,000! With this figure in mind it's as obvious as a hammer-hit thumb that somebody had to put an awful lot of cash on the keg head to keep production ahead of demand.

That somebody is very often a banker, and here's the story.

Bankers step in when needed

Big hardware manufacturers often get along very well by ploughing part of last year's profits back into this year's production. But big or small, most manufacturers find it's often convenient or more practical to supplement working capital for the financing of seasonal needs. At such times they turn to banks.

Banks in action

Commercial banks with their short-term loans help hardware manufacturers stock up on raw materials. Bank loans provide cash for the heavy costs of expanded production and marketing. In your own community they frequently help *your* dealer increase his inventories to meet peak season demands. And they may even help *you* finance the bench saw, drill press or power lathe you want for your own home workshop.

How come?

What banks do for the hardware industry is somewhat similar to what bees do for sweet clover. They bring on the necessary ingredients for growth because it's their job in the scheme of things. Banks exist to put money to work. It's as simple as that. This money . . . by and large the money you invest and deposit . . . also puts men and women to work. The fruits of its labor are a higher standard of living and a wider opportunity to share in the greatest abundance of goods and services the world has ever known.

The Chase National Bank, first in loans to American industry, is proud of banking's contribution to the progress of our country.

• • •

The CHASE National Bank
OF THE CITY OF NEW YORK
(Member Federal Deposit Insurance Corporation)



UAW's Drop-Ins Woo



Oldsters chip in a nickel a day for coffee, do their own KP duty.



Card games, checkers, arguments—or just plain snoozing—occupy most of their time.











Signing in at UAW's recreation centers gives retired auto workers a chance to catch up with union news, find out if they're getting all their "rights."

Pensioners

(Story continues on p. 160)





SOUND TALK
BY
Carl W. Lemmerman

could you stand 8 hours in your own plant?



... or would NOISE soon have you running for cover?

I know I couldn't get much done if I had machinery dinning in my ears all day. And the same is true of the workers in your plant. Put yourself in their place. Think of spending 8 hours a day, day after day, with the awful pounding on your eardrums that modern heavy machinery causes. Think of the actual physical pain that high noise levels produce. Imagine what would happen to your efficiency and morale.

DECIBELS ARE COSTING YOU DOLLARS!

Nationwide statistics prove that plant noise is costing industry *big* dollars. Not only does it reduce worker effectiveness, increase absenteeism, and cause spoilage . . . now there are reports of a sharp increase in deafness claims which are being paid off!

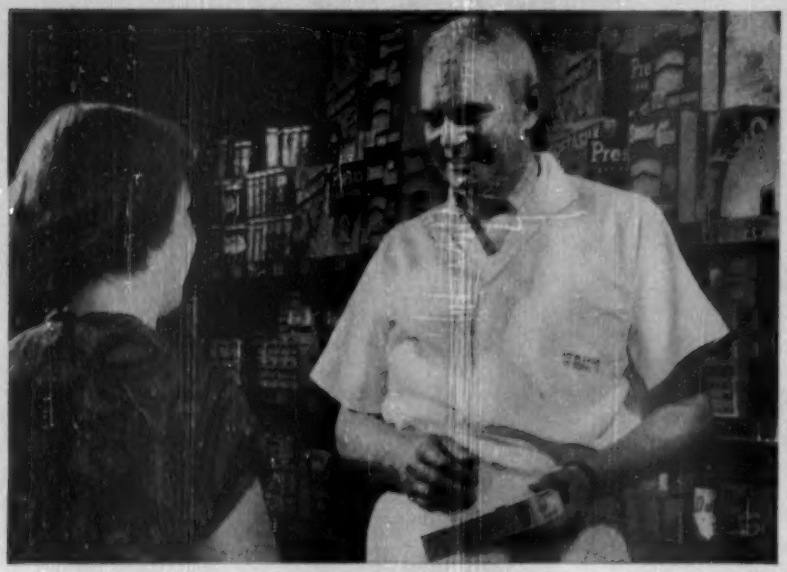
DON'T BE DEAF TO NOISE IN YOUR PLANT!

Do something *now* about your noise problem. It won't solve itself. I'd like to offer the skill and experience of our "Silence Service" team to help you end "noise loss" in your plant. Since 1936 we've been silencing some of the biggest noises in industry. We're proud to say that no noise is too big, no job is too small. Write today, outlining your noise problem to me.

Ask for our free booklet "Sound Facts"

Carl W. Lemmerman
President
INDUSTRIAL SOUND CONTROL, Inc.
45 Granby St., Hartford 12, Conn.

The man from Cunningham & Walsh



. . . selling gingerbread mix in Stuyvesant Town

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We believe every sale clinched across a counter may help clinch many more in the advertising we create.

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Thousands in use throughout industry.

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Send copy of Push-Type Crane Bulletin No. PT-1253.

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Overhead Cranes • Jib Cranes • Monorail Systems • Crane Runways
Representatives in Principal Cities



HANDICRAFT classes are always popular among men used to using their hands.

(Story starts on p. 158)

THE PICTURES on pages 158-159 show possible solution to two contemporary problems:

• How can oldsters live with retirement and like it?

• How can a union hold its member's loyalty after the worker has checked out of his job for the very last time?

Every day, somewhere between 70 and 200 retired auto workers show up at two Detroit "drop-in" centers for a game of cards, to watch TV, or to argue over the prospects of the Tigers. Whatever they do, they have a common reason for being at the center: "If I hang around the house all day, the old lady and I get on each other's nerves."

• **New Potential**—Calming the old lady's nerves, however, is only one part of the union's program for its retired workers. UAW now counts about 34,000 members on pensions nationally —13,000 of them in the Detroit area. By the end of 1955, the number will probably level off at 55,000 in auto centers throughout the country. Compared with UAW's near 1.5-million members, this is a small figure—but to the auto union it's a highly important one, since the pensioners retain union voting rights.

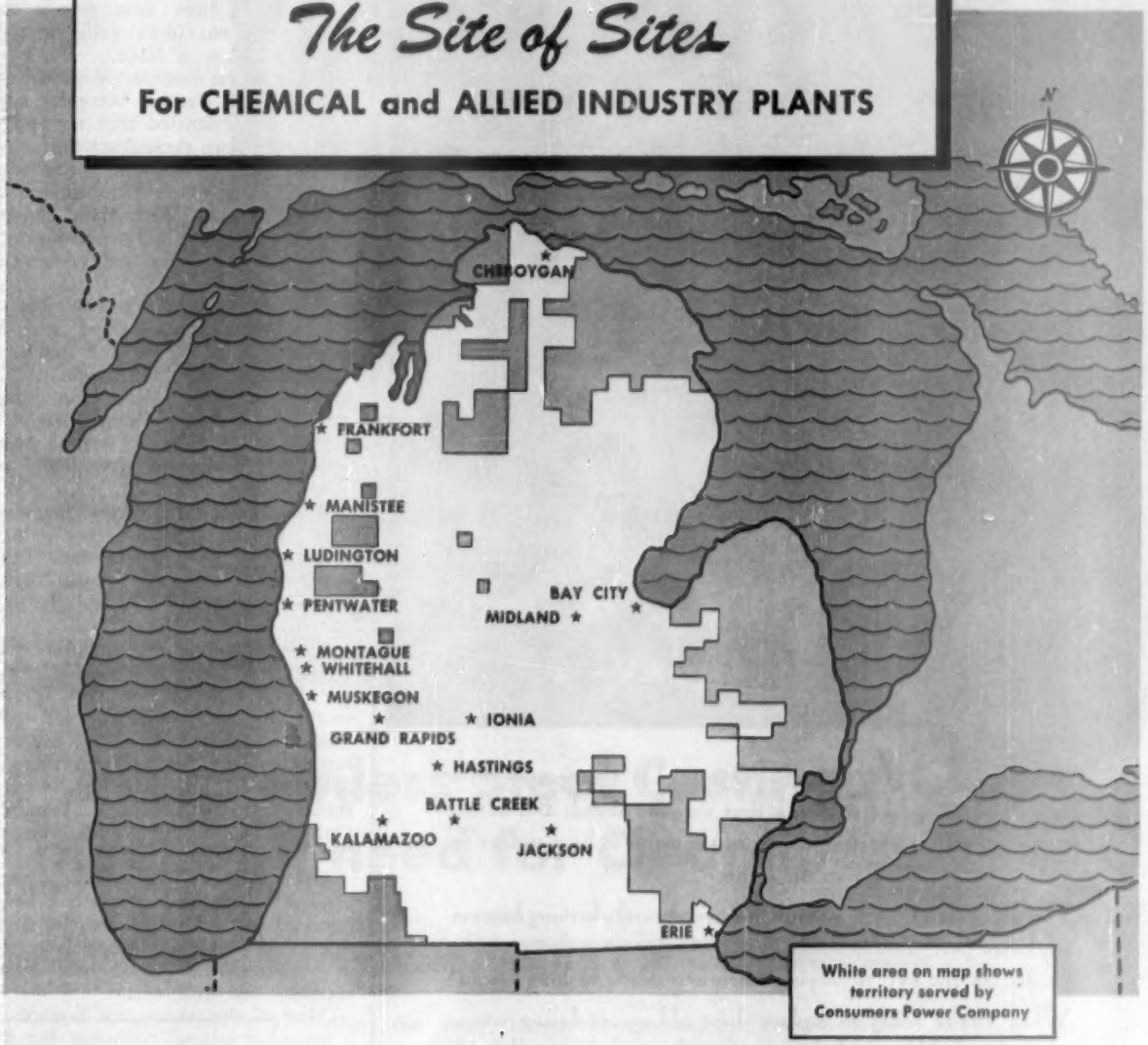
That's the background for UAW's spreading program of drop-in centers established for retired workers. Set up to give the oldsters something to do, the program—perhaps unwittingly—has given the auto union a new, potentially powerful marketplace for labor philosophy.

• **Center of Power**—For years, UAW has been the center of strong interest in a Labor Party—an organization tied to neither the Republican nor the

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There are plenty of good sites left, some of them (but by no means all) in the cities indicated on the map. And remember, Michigan has the greatest fresh water supply in the world — water for industry, water for transportation, water for recreation — plus an ideal location in the very heart of America.

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HEAVY-WEIGHT HOBBER

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The purchase of machine tools requires special planning because machines purchased today actually work on products of the future. So the key to buying machine tools is to look ahead!

When you're ready to replace those old money-losing, scrap-producing hobbers and threading machines, have a talk with your Lees-Bradner representative. He can tell you how Lees-Bradner machines are built for the needs of tomorrow.

Or, write directly to the company. No obligation, of course.

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CLEVELAND 11, OHIO, U.S.A.



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Democratic Parties. But UAW has consistently pointed out that labor alone doesn't have the strength for such a political party; it has to mobilize outside support from farm groups and other mass-vote blocs with interests similar to those of labor.

The growing number of retired industrial workers is fast becoming such a bloc: It's estimated that the spread of pension plans throughout the industry will mean that within a few years several million union members will be on retired rolls. With their families and friends they can be a strong new force for labor's political and social aspirations.

• **Outgrowth of RAO**—The drop-in centers program, organized and financed by UAW, is a first step in a campaign to keep retired workers interested in union affairs and union goals. Now about 18 months old, it is a development from the Retired Autoworkers Organization (BW—Feb.8'52, p30).

At first, UAW merely furnished space for meetings, and gave a little financial and advisory help. But UAW had been working on a plan of its own even before RAO, and the two programs were combined.

The first center was established in Detroit at Hudson Local 154's hall in late 1952. Now there are two centers in the city, and a third one will open soon. Eventually there will be five centers. There are also drop-in centers in South Bend, Ind., Hartford, Conn., Buffalo and Lockport, N. Y., Windsor, Ont., Toledo, Grand Rapids, Pontiac, and Lansing.

• **Open to All**—While all the centers are UAW-sponsored, they aren't being operated just for retired auto workers. Pensioned workers from other unions—and oldsters who never were union members—are welcomed.

Most of the centers are directed by a union recreational counselor, but the "regulars" have their own steering committees to work with the counselor, and their own committees of volunteers—for coffee making, the kitchen, workshops, and other activities.

• **Counseling**—Some of the retired workers still attend union meetings regularly; others go now and then, mostly for the important meetings. Through these, UAW and other unions maintain a contact with the retired group.

Others take counseling courses on hobbies and retirement problems—on such things as the rights of retired workers under pension and social security programs.

UAW insists that it doesn't really have any plans for steering their interests into political lines. To date, it has made no official move in that direction. However, it is only a step from what



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2] Ask for a copy of our 32-page booklet on "Allegheny Metal Castings" for corrosion and heat resisting uses.

ADDRESS DEPT. W-52

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the retired workers are doing and arguing about now to what could interest them tomorrow: local civic and political problems, national politics, and even union politics—since retired workers retain voting rights in their unions.

LABOR BRIEFS

New director is Paul E. Gurske, chairman of the Oregon State Industrial Accident Commission and for eight years an officer of the Oregon State Federation of Labor. Long-time member and official of AFL's Street, Electric Railway & Motor Coach Employees, Gurske is 64.

•

AFL-CIO cooperation is showing up more and more frequently on lower levels. Officers of AFL's Meat Cutters & Butcher Workmen will be on the platform at a forthcoming district convention of CIO's United Packinghouse Workers. And two CIO unions, the United Steelworkers and the Amalgamated Clothing Workers, have just contributed $50,000 each to help AFL's United Hatters in its strike against the Hat Corp. of America (BW—Mar.27 '54,p154).

•

No raise is provided for in a new contract between AFL's Cannery Workers and California Processors & Growers, Inc., covering 60,000. Either party can reopen on pay any time in 1954 if there is a significant change in BLS' cost-of-living index. If there's a disagreement then, it will be arbitrated.

•

An organizing drive is being conducted by the Communications Workers of America (CIO) in 50 cities, and is aimed at giving CWA more solid representation—and bargaining power—in the Bell Telephone system. . . . The Textile Workers Union of America (CIO) has opened an organizing office in Gastonia, N. C., center of a nonunion area with 100 mills employing 25,000—and the storm center of a futile effort to unionize mill workers in the 1920s.

The Pictures—Floyd Bright—80; Harry Compton—30, 31, 75, 76; Douglas Aircraft Co., Inc.—96, 97; du Pont Co.—100 (top); European Picture Service—28; B. F. Goodrich—100 (bot.); I.N.P.—134 (rt.); Herb Kratovil—Cover, 54, 55, 56, 57; McGraw-Hill World News—144; Ed Nano—170, 171, 172, 173; Studebaker—62, W.W.—29, 134 (lt.); John Zimmerman—158, 159, 160.



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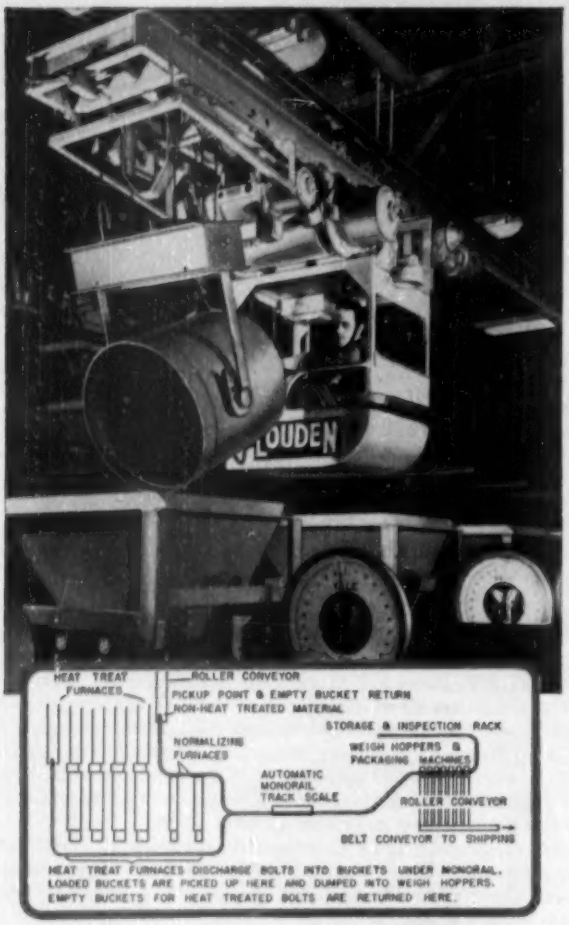
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Many plant executives have found a broad avenue to savings and production increases in Louden engineered Monorail and Crane systems . . . products of the longest overhead handling experience.

Above, left, a Louden cab-controlled carrier conveys heat-treated parts from furnaces to packaging machine hoppers. With handling overhead, furnaces are grouped closer together. Rehandling is eliminated. Machine non-productive time is cut. Much the same is true of the installation shown at the right where a Louden 5-ton crane is handling a component for final assembly in a screw thread machine factory.

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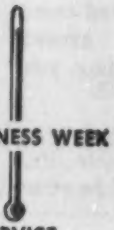
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PERSONAL BUSINESS

BUSINESS WEEK
APR. 17, 1954



If you're worrying about overweight, beware of plunging into a diet on your own. It might ruin your health—or even be fatal in extreme cases.

The temptation may be great. **Dieting has developed from a fad into a national obsession.** You can find the latest "easy" or "scientific" way to lose pounds in almost any newspaper or magazine.

The plain fact is that there is no magic diet, no easy plan for losing weight. And the only scientific diet is one tailored to the individual. The Council on Foods & Nutrition of American Medical Assn. insists that only **your doctor is qualified to give you a weight-reducing program that will keep you healthy.**

Executives should never take overweight lightly. Consensus of medical opinion is that **overweight is bad in itself—particularly in men over 40.** Statistics show that it tends to shorten life, raises markedly the chance of developing diabetes, heart disease, high blood pressure, and such diseases. Overweights are poor surgical risks, have less resistance to infection.

Why do people get fat, anyway? The answer is brutally simple, and almost universally true: **They eat too much.** They can do this without stuffing themselves with large quantities of food. The catch is the number of calories they eat. (Calories are the amount of heat, or energy, food produces.)

After 30 or 40, a person's metabolism slows down. His physical activity often decreases. He needs fewer calories to maintain his best weight. What used to be normal eating becomes overeating.

But the trouble is that now his eating habits are firmly entrenched—and it doesn't occur to him to change them. His reason may be that good food has always been a family tradition, or it has become a sign of success or social standing—or is one of the indispensable pleasures of life.

A change in these habits—and a drastic one—is the secret of successful dieting. No matter how quickly or slowly, easily or painfully you lose those extra pounds, they'll come right back when you return to the old menu.

So if your doctor puts you on a diet, **try to change your basic outlook about eating.** As you may have had to give up playing tennis because it was a bit too strenuous, so you should decide you must give up overeating.

It won't be easy—changing the habits of a lifetime never is. But once you get used to it, you can take it in stride. And you'll enjoy life a lot more—and have more of it to enjoy.

Any diet you go on will be rough. Don't count on drugs to do the job—any drug your doctor gives you will be used in addition to a diet. And don't expect steam baths, massage—or even exercise—to provide short cuts. Metropolitan Life Insurance Co. sums up the problem of reducing like this: **"No easy way is safe; no safe way is easy."**

What will your diet consist of? Here again, it's up to your individual situation and your own doctor. But as a rule, whatever it is will probably add up to 1,200 calories a day. (Some diets go as low as 1,000 calories, others as high as 1,500.)

That sounds like more than it is—calories add up surprisingly fast. One diet, for example, lists a hamburger on a bun as containing 500 calories, a cream puff at 450, apple pie at 560.

Most diets go heavy on protein; it is low in calories and isn't stored in the body. But note that other foods—including some fats—are essential. That's one of the reasons for relying on your doctor to set your diet.

Once you get through your diet successfully, you will be allowed more freedom, probably can count your own calories to see that you don't exceed a certain figure. Thus if you like a bun with your coffee in midmorning, you can probably have it. But you'll have to skimp elsewhere.

Above all, don't let the idea that you never again can eat as you used to get you down. Your reward will be a longer and more enjoyable life. And among those enjoyments—if you have the right attitude—will be your meals.

—•—

It will pay you to keep an up-to-date inventory of your household furniture and effects. Without it, there will be a delay in settling your claim in case of fire; it could even mean a loss of money.

The reason for this lies in a term used in most fire-insurance policies—"actual cash value." This is the standard for (1) determining the amount of insurance you need; and (2) the amount of loss to be paid you. It means replacement cost of the property at the time of loss—less depreciation.

The phrase "at the time of loss" is equally important to you. It may be quite different from the value at the time you acquired the property—or at the time the insurance was written.

Note that you can't collect more than physical replacement cost, even if you could sell the particular items for more than that. Also, sentimental, historical, or similar factors don't increase value for insurance purposes.

Ask your insurance agent for a household-inventory book. Estimate the present value of each item, add them up to find the amount of insurance you should be carrying. Make sure your policy is changed to include new additions. Finally, keep the inventory in a safe place.

—•—

If you're planning to go to Europe this summer, note these new aids:

• Pastene's Auto Guide to Europe (McGraw-Hill, $4.50), a new book complete with itineraries, maps of each country, road signs, and so on.

• The Shopping Guide to Europe (Harper, $3.50), said by experts to be the best rundown of best buys, where to shop for each item, and the like.

• Foreign Currency Service, 1472 Broadway, New York 36, has a free booklet—"Your ABC of Foreign Exchange." For $1.50, you can also get from the service the "Changeputer"—a slide-rule device that gives U.S. equivalents for foreign money values, and vice versa.

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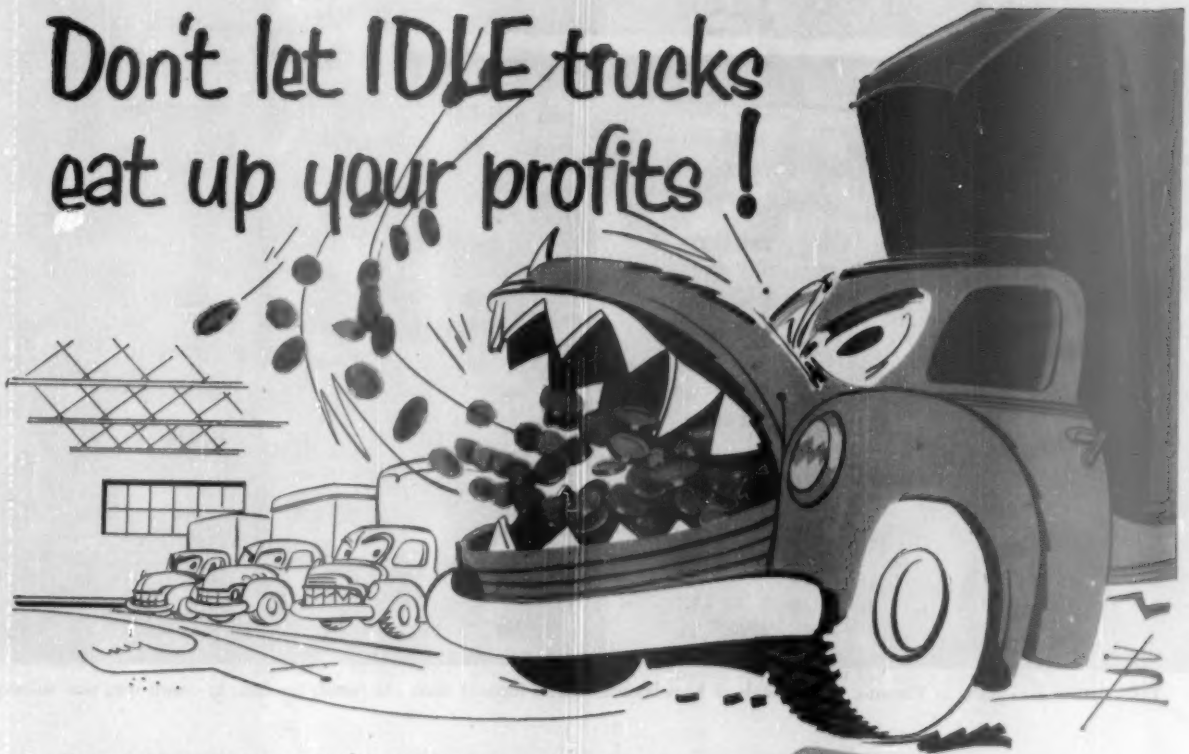
Detroit's cars of the future may have shorter wheel bases. Ward's Reports, automotive trade journal, points out that experimental models and "dream cars" show an average wheel base of 114 in. as against 120 in. in standard models. They're also lower. But width and over-all length are about the same.

—•—

A new drug called arfonad permits almost complete control of bleeding in difficult operations of the head, neck, and chest. It works by cutting blood pressure drastically, which avoids transfusions and postoperative shock.

Contents copyrighted under the general copyright on the Apr. 17, 1954, Issue—Business Week, 330 W. 42nd St., New York, N. Y.

Don't let IDLE trucks eat up your profits!



DON'T invest huge capital in trucks that often lie idle! Don't assume the expense of *depreciation . . . garaging . . . insurance . . . overhead!* It's much smarter business to keep your fleet at a minimum . . . and then rent extra trucks from Hertz . . . ONLY as you need them . . . and when you need them! In this way you save the expense and headache of surplus ownership . . . and you can always be sure of trucks for peak periods and emergencies.



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Who can rent from Hertz? Large corporations, small companies and individuals, too, rent trucks from Hertz. You need only a driver's license and normal identification to rent exactly the kind of truck you need for your specific job. In most of the more than 550 cities in the nationwide Hertz System, fleets of ½ ton, 1 ton, 2 ton, pickup, panel, van and stake body trucks are available and are always kept in excellent condition.

How much red tape? Virtually none. Accredited business firms simply call on the phone, make arrangements, send a driver for the truck. Call your Hertz station any time and rent a truck. In a matter of minutes you or your driver will be on the way. You pay only for actual time and mileage . . . with no hidden charges of any kind.



HERTZ *Truck-Rental* **SYSTEM**

How small the cost? For example: the rate for the use of a 2 ton van or stake truck for one day in Atlanta, Georgia, is only $7.00, plus 9 cents per mile, including gasoline, oil and insurance. Thus, the total cost for a 30 mile trip is only $9.70. Rates lower by the week or on a long-term lease. (In some cities, the rates may vary slightly from the above example.)

For complete information about either short-term renting, or long-term leasing, call your nearest Hertz station, or write to the address below. Learn the FACTS! You'll profit!

Look in your telephone directory under "H" for your nearest HERTZ station

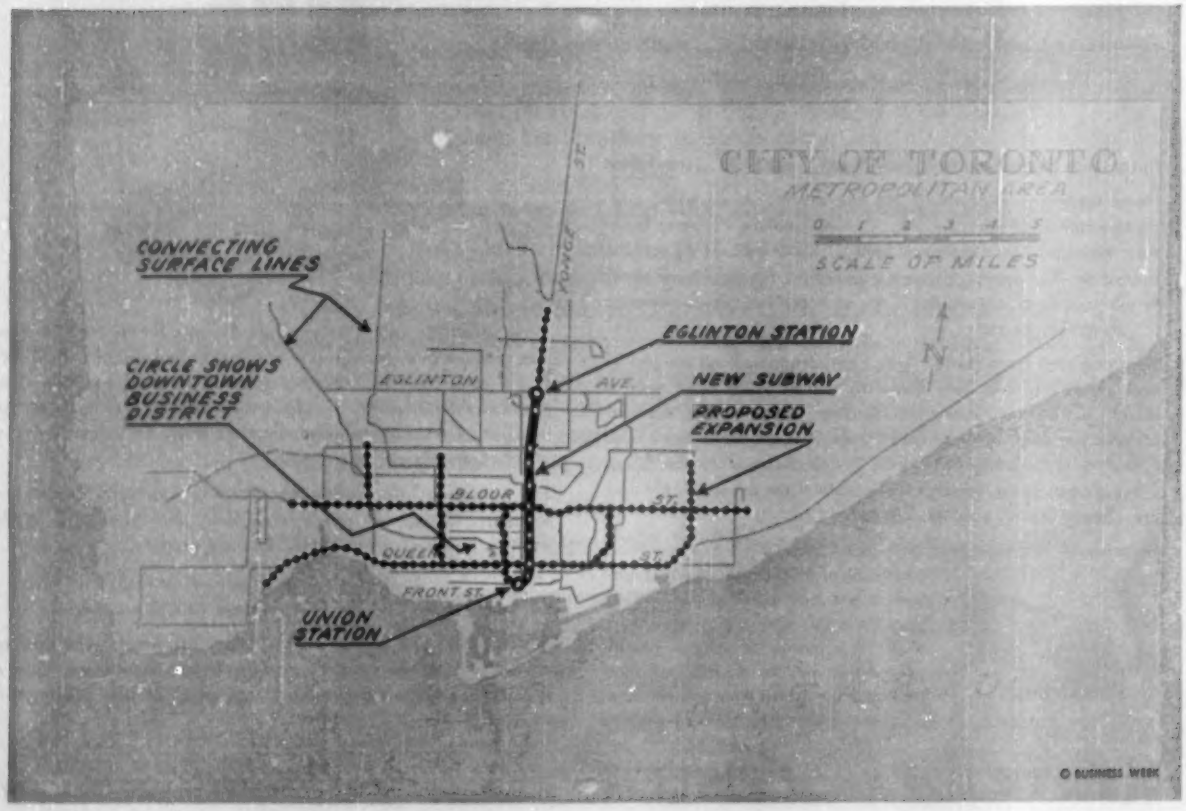
LONG TERM LEASE. Hertz' Truck Lease Service, for one truck or a fleet, is a proved plan that releases capital investment, and yet gives every single advantage of ownership at a cost often less than ownership.

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THE BIG PUSH starts in Toronto, as thousands of homebound workers forsake their old friend, the bus, to crowd into new subway.

Toronto Basks in the New





EVERY HOUR was rush hour, as sightseers, housewives, and shoppers vied for places on the city's new speed demon.

Joys of Subway Straphanging

This month, Torontonians joined the legions of straphangers. If residents of the city and the 12 suburbs that make up Metropolitan Toronto needed any further confirmation that their hometown had finally made the Big League, this was it.

On Mar. 30, at a gala international ceremony—"second only to the Coronation"—the city unveiled its first subway, a 4.6-mile stretch along Yonge Street between Union and Eglinton stations.

By New York City or London standards, that's a pretty small hitch; but the Toronto Transit Commission says it's just the beginning (map).

For Toronto—weary of some of the worst rush hour traffic snarls on this continent—it was a mighty morale booster.

As the second largest city in Canada, Toronto is the hub for main offices, industry, and the Canadian Stock Exchange. Its residents have a civic and national pride that amounts almost to an obsession. The city thinks of itself as the London of Canada, and has longed for the sophistication that a subway system would bring.

• **Traffic Snarl**—City fathers have been talking about a subway for nearly 40 years. Matters came to a head in the early 1940s, when it became obvious that something had to be done to rescue the downtown business section of the city. Toronto's narrow streets (some only 66 ft. from building to building) couldn't take the increasing flow of autos. Traffic was so bad that shoppers began to switch their patronage to less congested areas. Downtown stores took a shellacking, and property values dropped as the downtown section began to die on the vine.

In 1949 the work was actually started. The original estimate for the job was $28.5-million, but soaring steel prices and labor costs upped the fee to a final total of $58.5-million.

• **Expensive**—To visiting American engineers and city planners, the cost seemed high. Chairman William C. McBrien of the Toronto Transit Commission admits this, but adds "What price do you put on the heart of a big city being strangled by traffic?" And he points out that the building boom along the subway right-of-way has topped the $10-million mark since the project started. Swiss, English, and American companies—speculating on a new interest in downtown Toronto—plan to spend more than $140-million for construction of office buildings and nearby apartment projects.

Up to this time, Torontonians have had to rely on buses and trolleys to get around the city. Now they whiz through the 3.2-mile subsurface section and 1.4-mile open cut in less than 15 min. Before the advent of the subway, they could spend nearly an hour bouncing along the same distance on a street car during a rush hour. Another gain is that they can get free transfers at 11 of the 12 stations along the way to crosstown buses or trolleys.

• **No Tax Money**—So far, Toronto taxpayers haven't had to ante up anything for the construction of the subway. TTC had about $12-million when the subway construction began. It sold $65-million in bonds to private investors, and will pay that off at a $2-million-a-year rate.

TTC's next step in the expansion program will be a mile-long tunnel under Queen Street. This will allow streetcars to go under the Yonge Street subway for connections, and will take the surface cars off one of the main bottlenecks. Other steps include a complete Bloor Street line, a downtown loop, and extensions of the existing line.

McBrien probably won't have much trouble selling this program to the taxpayers. They're already sold on subways.

For more pictures and details of subways, turn to page 172.



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"clues" — is the classified advertising section of BUSINESS WEEK. Write for information.



OVER A MILLION riders pass through turnstiles in first two weeks of operation—and not a slug in the million.



REAL BRASSIERES on dimensional advertising plaques tempt gay blades to snatch them from their mounts as the train passes.

After Two Weeks, Toronto

Two weeks after the grand opening, Toronto was still treating its new subway like an exciting toy. Workers were actually looking forward to the ride home; and Sunday sightseers had a new mecca. Station guards were besieged with questions like "How fast does it go?; "Will my dress catch in the doors?; and one small boy wanted to know, "Are we going to Montreal?"

There was plenty of confusion in the operations departments, too. On the first day, the gum-vendorlike token dispenser blew up in a hailstorm of tokens, pouring the tiny aluminum discs into the hands of amazed and delighted passengers. The dispensers, made in Chicago, were supposed to dispense at the rate of three tokens for 25¢ (the cheapest ride in North America), but



STRAPHANGING is still a novelty to Torontonians, who haven't adjusted to the blase attitude of the subway habitue.



AT TRANSFER POINTS machines dispense free transfers to buses. There are 11 transfer points on a 12-station line.

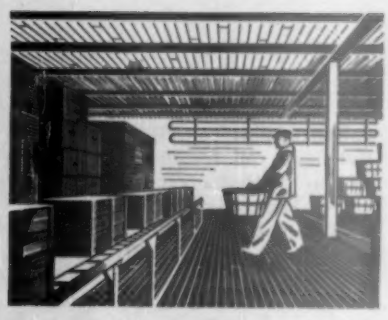
Still Calls Subways Fun

(Story starts on page 170)

something went wrong. Toronto Transit Commission had to fall back on human skill until the doctors arrived.

TTC, however, sees no reason why things shouldn't run smoothly as soon as its crew—and the passengers—get the hang of Big City life.

• **World's Best**—When Toronto decided to build the subway it decided to have the most modern, best-lighted, most efficient one in the world. The plans were drawn up after two years' study abroad by Chairman McBrien and his engineers. The London tube, Paris Metro, and New York, Boston, and Philadelphia subways were inspected. The final proposal of the present route was presented to voters in 1946 for a vote of confidence, passing by the margin of 10-to-1. The firm



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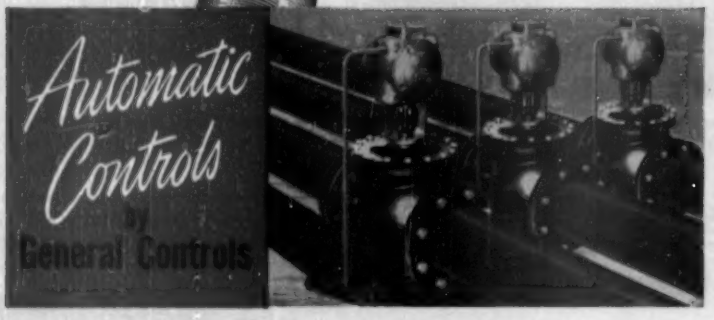
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of Deleuw, Cather & Co., consulting engineers who had a hand in forming the Chicago subway, was retained by TTC in 1942, and remained with the project until it was completed.

• **New Look**—Probably the biggest difference between the Toronto subway cars and their American cousins is that Toronto's trains are hard to hear. Tracks, station platforms, and cars themselves have been soundproofed with rubber pads (under the tracks) and cork insulation. The 100 cars—made in England—are of steel, but four aluminum cars are on order for experimental purposes.

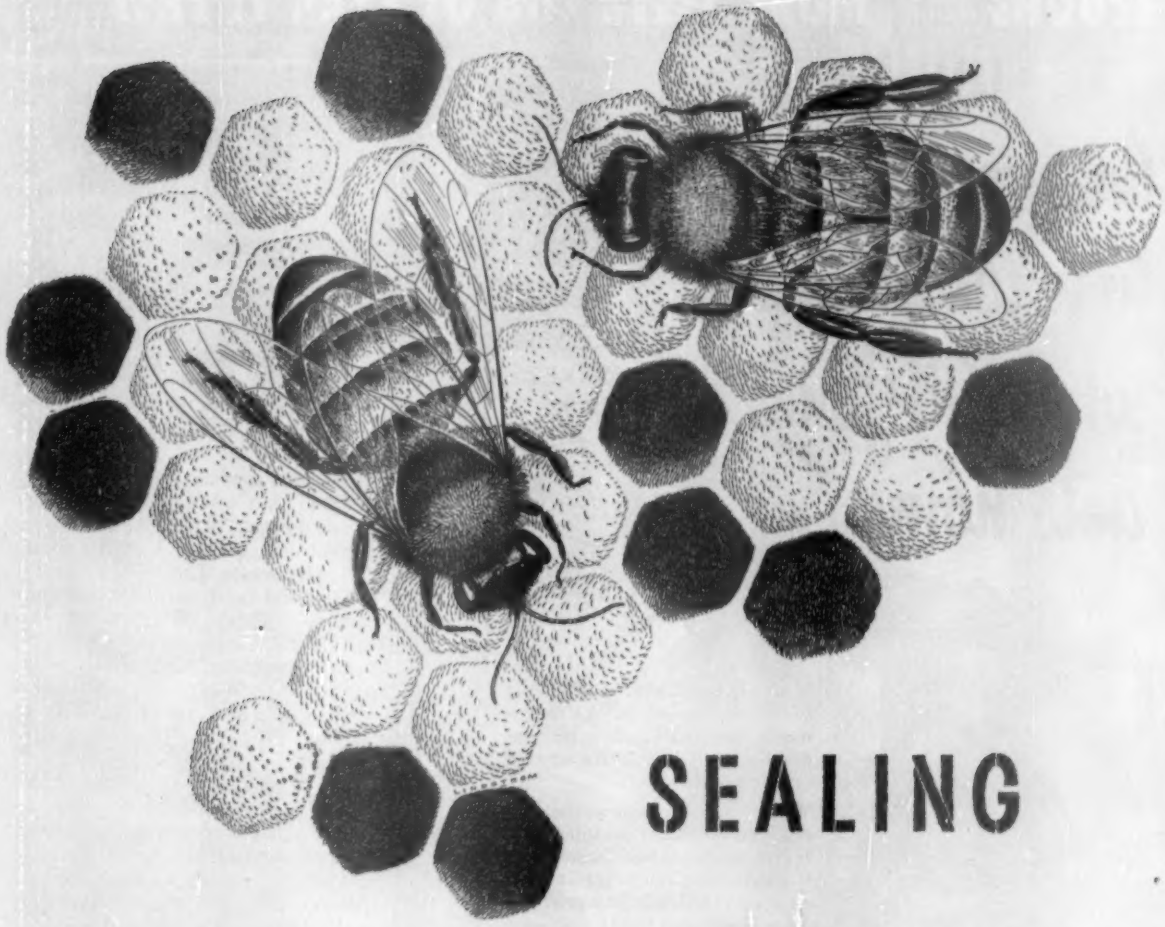
For ventilation TTC depends on the pistonlike movement of trains to push air into tunnel sections and draw air out into open cuts. Vent shafts to the street take off some of the pressure.

The stations drew exclamations from the populace, as well as from the transit experts who had gathered to attend the opening ceremonies. Each station is done in a different pastel color. The wall (Vitrolite) has a polished glass appearance. Advertisements are restricted to sections on center support pillars and have a dimensional look (bottom picture, page 172). Mezzanine floors in between platforms and transfer points house turnstiles and cashier windows.

• **Just Plain Digging**—There was nothing new about the construction methods used in digging out the subway space underneath and adjacent to Yonge Street, however. For engineers and contractors, the planned cut and cover excavation was old stuff. True, refinements had been added, safety measures improved—but utilities and traffic were still hard to relocate and reroute.

Several blocks of pavement were torn off, traffic was rerouted and shovels went to a depth of about 8 ft., relocating utilities (gas, water, electricity, phones, and sewers) as they went along. Sewers were shunted to parallel streets while the water pipes and other utilities were drawn to the side of the streets, resting in wooden supports. A steel H-beam cover was spread across the excavation and a wooden roadway was placed on top of that. Traffic was resumed, and the ditch was shoveled out underneath to a depth of 20 ft. A concrete box was poured to form the subway track area, and the earth was back-filled on top. The utilities were brought back, placed in the sand covering, and the street was repaved. Water seepage was the biggest headache during the cutting and covering.

• **Watchers, Too**—While all this was going on in the downtown area, thousands of spectators jammed the edges of Yonge Street. They watched wide-eyed as the tons of material were hauled into the pit. All in all, more than 28,000 tons of steel, 1.4-million bags of



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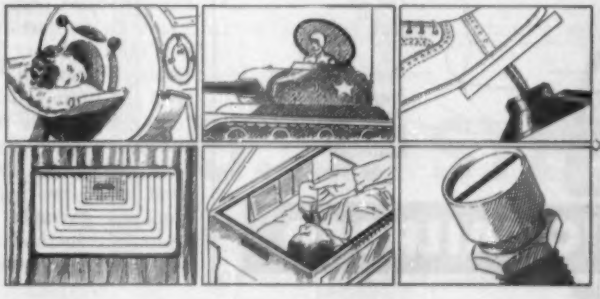
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Within that area you're almost certain to find the natural resources and facilities which you require. Of equal importance, are the recreational opportunities, the healthful climate and many other advantages. In the "Union Pacific West" workers are happier on the job and *off* the job.

For complete and confidential information about available industrial sites ask the "U. P." man who contacts you, or write the Industrial Development Department, Room 311, Union Pacific Railroad, Omaha 2, Nebraska.



Map at left shows states served by Union Pacific Railroad

UNION PACIFIC RAILROAD

cement, 15-million bd. ft. of lumber, and 41,000 tons of sand and gravel were used. Excavators hauled 1.7-million cu. yd. of dirt out of the ditch.

Harry E. Pettett, secretary of TTC, found himself the target of bystanders, most of whom asked the same questions. One day he was being shaved in a Yonge Street barbershop when air hammers began ripping up the street outside. The usual kibitzers began the incessant questioning. "Why don't you sign up for superintendent?" Pettett asked. Then it hit him. He dashed out of the shop half-shaved and went to McBrien to order a public relations item. It was a timetable brochure titled the Sidewalk Superintendent's Manual. McBrien went for it. It was part of his philosophy of going to the public to sell a subway.

The first manual appeared in stores, city hall, and other public places, and was designated "Stage 1." This covered the cut and cover method of construction, gave a map of the right-of-way and stations and explained the relocation of utilities. "Stage 2" appeared when special underpinning and tunneling was being done as the tracks crossed underneath Yonge Street to private right-of-way. Stages 3, 4, and 5 deal with the stations, cars, and "How to use the subway."

Pettett says that circulation of the manual has exceeded the 400,000 mark, and is still going strong. As a result, the local butcher, baker, and candlestick maker are now subway experts. The manuals have also gone to transit planners in the United States, Europe, Japan, India, South America, and Africa. "International interest was keen on this job because it was the first completely new subway built since the downtown underground was completed in Chicago before World War II," Pettett says.

• **Imitators**—The Toronto project is being watched closely by several American cities that are also having traffic problems.

Last November, Cleveland passed a $35-million subway project for the downtown area (a loop to connect the two rapid transit systems east and west). Cleveland needed it to ease cross town traffic. Chicago is now building an open cut rapid system linked to a freeway—the Congress Street deal. San Francisco is starting a four-mile subway under Market Street. Detroit, St. Louis, Pittsburgh, and Washington civic and business leaders are pressuring their transit lines to go ahead with a subway or rapid transit. But they all took a look at Toronto before they went ahead on their planning. Cleveland, for example, is using some of Toronto's methods on its open cut west side rapid now being built.

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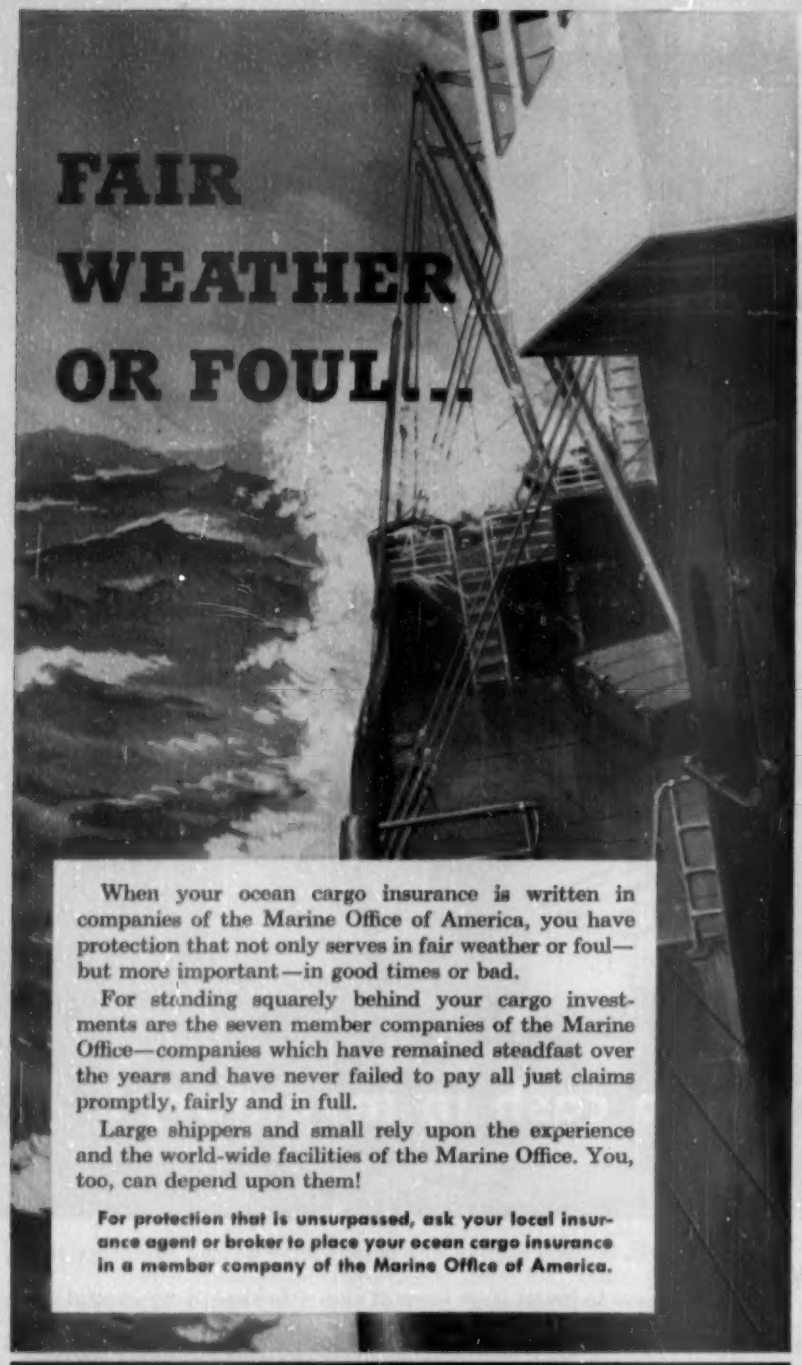
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Easy-to-Take Tax

Liberal provisions of Michigan's nonpyramiding levy on business receipts have melted opposition.

Michigan's new business receipts tax seems to have gone down almost like ice cream.

Opposition that cropped up when the unique law went into effect last July (BW—Jul.11'53,p64) was nowhere in sight when the state legislature recently took a second look at the tax. In the absence of publicized complaints, it did some minor tinkering, changed none of the basic provisions. The betting now is that the tax will have a long—and profitable—run, far beyond its scheduled expiration date of March, 1955.

• **Tax With Appeal**—The tax's palatability stems from the fact that, while its provisions are so liberal it's been dubbed a "painless" measure, it still manages to rake in a pile of revenue. It will garner over $30-million in its first year; it yielded about $16-million in the six months ended Dec. 31.

It did that in spite of exempting almost every dollar that could reasonably be exempted: individual or corporate gross receipts of less than $20,000, salaries and wages, income of nonprofit corporations, educational institutions, insurance and financial companies, and income received from intangible personal property that was already subject to tax.

Businesses that aren't exempt from the tax get some big breaks of their own. They pay tax only on "adjusted receipts," figured by taking some fat deductions from gross receipts. A key feature of the law is that it aims to avoid tax pyramiding, to tax only the value added to the goods by the business involved. A taxpayer can deduct goods and services used in his business—including raw materials cost and rent—that have already been included in the tax basis of others. He can also deduct such items as taxes, interest, and cash discounts allowed by the business.

• **Exemption**—Just to bring the tax down even lower, the act provides that the first $10,000 of adjusted receipts is exempt. The tax rate on what's left was set at a mild $4 per $1,000 of adjusted receipts, $1 per $1,000 for utilities.

There are special provisions that prorate the tax for corporations doing business both inside and outside the state, and there is no tax at all for a Michigan manufacturer who sells all his products outside the state.

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The Income Pattern — Business Week's Regional Income Indexes

Federal Reserve District	Change from Year Ago	The Indexes: Feb. 1954	Jan. 1954	Feb. 1953
Boston 1.	+2.1%	256.6	257.0	251.4
New York 2.	+6.1%	279.4	278.7	263.4
Philadelphia 3.	+0.3%	266.1	265.3	265.3
Cleveland 4.	−0.3%	293.2	296.4	294.2
Richmond 5.	−1.1%	306.5	306.2	309.9
Atlanta 6.	+0.2%	359.0	359.0	358.3
Chicago 7.	+1.2%	302.0	306.1	298.3
St. Louis 8.	+0.3%	297.3	294.3	296.3
Minneapolis 9.	+2.2%	321.2	314.2	314.2
Kansas City 10.	+2.2%	366.8	368.9	358.8
Dallas 11.	−0.9%	407.2	407.7	411.0
San Francisco 12.	−5.3%	324.9	327.9	342.9
U. S. Composite	+0.7%	305.1	306.0	302.9



1941 = 100; adjusted for seasonal. February figures preliminary; January revised

Gains Shrink for Seventh Month

For the seventh straight month, U. S. incomes in February showed shrinking gains compared with the year-ago figures, according to BUSINESS WEEK's Composite of Regional Income Indexes. The February gain was 0.7% over 1953.

Regional changes ranged from a 6.1% rise in New York to a 5.3% drop in San Francisco, which was down for the fourth month in a row. Compared with the same 1952 month San Francisco's February income was still up 6%; the U. S. total was up 7.9%.

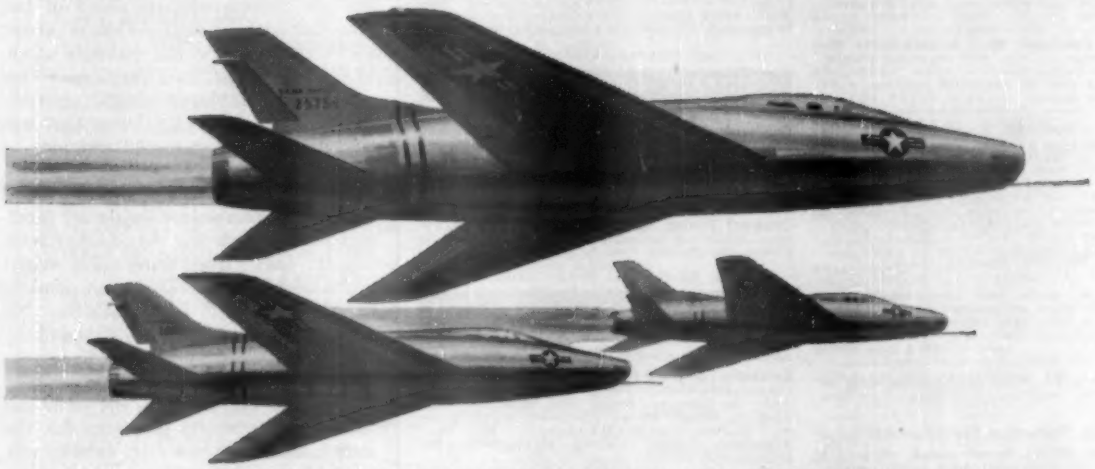
Compared with January 1954, the nation's income was down 0.3%, to continue a small but steady decline. Minneapolis showed a 2.2% gain over January; Chicago was down 1.3%.

In February the U. S. Composite stood 1.6% below the all-time high set in July 1953. Only two regions, Minneapolis and Kansas City, were slightly above their 1953 highs.

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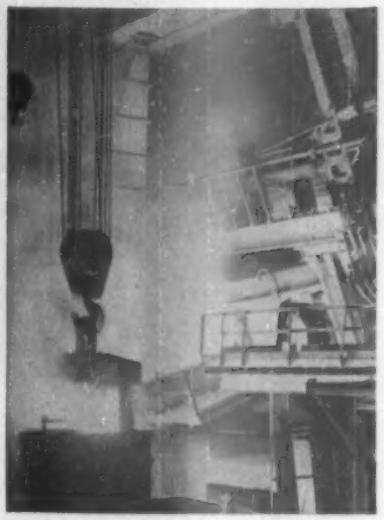
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Calif. Plants for sale or lease—new Industrial survey gives facts on plants and on facilities available for manufacture, assembly, packaging, warehousing in Alameda County. Write for descriptive Data Sheet. No cost. Strictly confidential. Metropolitan Oakland Area Committee (a non-profit organization), Suite #2, 427-13th St., Oakland 12, Calif.

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REGIONS BRIEFS



The West Coast's newest steel-making facilities started operation last week when Bethlehem Pacific Coast Steel Corp. unveiled three electric furnaces (above) at its Los Angeles mill. The furnaces have a total annual capacity of 400,000 tons of ingots. They need no pig iron but operate entirely on steel scrap—a big advantage in an area 1,200 mi. from the Mesabi.

•

Income tax collections in North Carolina are running slightly ahead of last year—but not enough. They're about $3.5-million below the estimate made when the budget was prepared. This means state employees almost certainly won't get a 2½% wage boost that was contingent upon sustained revenue.

•

Truck operators have generally fared well in this year's state legislature meetings. New York and Mississippi both passed laws liberalizing size-weight limitations; similar laws are pending in Michigan and Massachusetts. No state has passed any law regarded by truckers as unfavorable.

•

The Maine Turnpike was the safest toll road in the country last year for the sixth consecutive year. Its fatality rate of 1.13 per 100-million vehicle-miles compares with 4.14 for the New Jersey Turnpike, 5.3 for all highways in the state of Maine, 7.0 for all highways in the country, and 7.5 for the Pennsylvania Turnpike.

•

Opening of the port of New Haven to regular overseas cargo service (BW—Mar.27'54,p101) has awakened interest in doing the same thing for other Connecticut ports. A state port authority has been suggested to develop and operate facilities at New London, Bridgeport, and other cities.

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No Whistling in the Dark

There's good news in McGraw-Hill's seventh annual survey of business' plans for new plant and equipment (page 104). The total expenditures planned for 1954 will be down only 4% from last year's spending record. In manufacturing industries, businessmen plan to spend as much or more this year as they did in 1953.

Coming at a time when our economic future is still uncertain, these plans are a real demonstration of business confidence. Manufacturing plans, in particular, show a sharp rise from the preliminary estimates reported by McGraw-Hill last fall and by the survey of the Dept. of Commerce only last month.

The bullishness displayed by businessmen is not a case of whistling in the dark. They frankly expect a decline in sales this year. But the minor dip we've experienced isn't halting large scale additions to productive capacity.

Capacity is being increased because most businessmen are convinced that despite occasional fluctuations, sales will rise over the long haul. The majority of companies are intent on bettering their economic position. They are proceeding on the theory that building extra facilities in a period of sales decline will pay off as soon as demand picks up.

The competitive race will grow hotter, businessmen believe. Most companies are confident that their own sales will expand much faster than the sales of their competitors. Manufacturers, as a group, think that industry sales will increase by 4% over the next four years. But individually, they expect sales of their own firms to grow by 12%—three times as fast as the average.

Most companies are putting the larger portion of their capital investment dollars into modernization rather than expansion. This represents a shift from the policy followed before and during the Korea war. Expansion will continue, of course, but more and more funds will go to replace plant and machinery.

There is one note of warning, however. In proposing to maintain a high level of spending, businessmen admit that their plans hinge on the economic situation. A real severe business decline, they say, could cut capital spending in half. But the chances of such a disaster are remote. One reason that tends to rule it out, of course, is the very fact that business is confident and is prepared to spend.

During the past few years business outlays have been a major factor in maintaining boom conditions. Spending in 1954 won't produce any new impetus that could bring a sharp upturn. But that wasn't expected anyway. If the plans that business has made are carried out this year, they will prove a powerful prop against decline, and will make a vital contribution toward smoothing the transition to a peacetime economy.

Profitable Adversity

One of the gloomiest views of the state of our economy is held by Dave Beck, the ebullient president of AFL's powerful Teamsters Union. Beck makes no bones about his belief that "we are in a very serious recession." In fact, he thinks we are heading for disaster. The only hope of pulling out of "our tailspin," as he sees it, is "if we don't bury our heads in the sand and pretend it isn't there."

This is indeed a grim picture. But Beck himself revealed that there are rays of light amid the darkness. In the depths of his pessimism he noted that his union had made a profit of more than $340,000 in security dealings during the past 90 days. That's a tidy sum to add to the rainy-day fund of $32-million the Teamsters have in their treasury.

Before now we have had eras of "profitless-prosperity" from time to time. Mr. Beck seems to have discovered something new, "profitable adversity."

Today They Teach It Better

People often complain that things aren't what they used to be. It's a phrase that's applied to today's living conditions, business profits, workmanship, and a score of other things. The current state of children's education, for instance, is generally thought to be much inferior to what it was in the good old days.

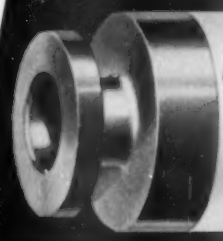
The validity of the complaint against today's education was the subject of a meeting this month of the Metropolitan School Study Council at Columbia University. It was attended by some 125 board members and school superintendents. Instead of sitting back and airing their views, these officials, mainly executives or professional people with years of college behind them, were given tests usually taken by today's 8th and 12th grade pupils.

According to one report we have, there were many red faces when the results were announced. In arithmetic, the top 10% of the group tied the top 10% of high school seniors at a score of 14.9. But that wasn't much ahead of the top 10% of 8th graders, who scored 14.8. And a full 20% of the adult group made poorer scores than the average 8th grade pupil.

In reading, adults showed up even worse. From top to bottom, they could not match the high school seniors at any point. Their lowest 30% of scores fell just about midway between the 8th graders and the 12th graders. Even the average grownup was embarrassingly below the average high school senior. The midpoint for adults was 11.6, compared with 12.6 for the seniors.

This may not be conclusive evidence that modern education is in fact better than the old. But the chastened officials who took the test were at least reassured that the schools for which they are responsible are teaching the fundamentals of education soundly and effectively. At a time when critics of modern education are sounding out in volume, the results of the meeting at Columbia assure us that the money being appropriated for public schools is well spent.

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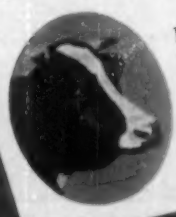
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